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OVERCOMING EMPLOYEE SILENCE TO ACHIEVE ORGANIZATIONAL COMMITMENT

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Abstract

One of the fast spread issue in the organization is the employee silence, yet few empirical studies are conducted to identify its nature and main components. The purpose of this paper was to investigate the factors leading to silence climate in the firm and discovering the effects of these factors on organizational commitment. In the stressful situations, when business is in need of innovative ideas and creativity, employees want to remain silent leading to many negative consequences. In such a situation, what matters is the participative leadership style that encourages the employees to raise their voices. This paper also highlights the positive impact of effective communication and decentralized decision making process along with conducive norms and organizational culture on employee silence behavior. Thus the overall theme of this study was to present a framework exploring how employee silence effects the organizational commitment through the leadership style, communication process and organizational culture. A cross-sectional study was conducted on a sample of 200 employees, taken from the NGO (Non Governmental Organization) sector, in Peshawar, Pakistan, in which three aspects of employee silence, namely leadership style, communication process and organizational culture, were constructed and measured in order to examine their effects on organizational commitment. Regression analysis will be used to test the hypotheses. Although the concept of employee silence is projected in organizations, less empirical work is noted in the literature focusing on exploring, analyzing and handling it. Review of literature has proved a negative impact of silence climate on organizations' performance, innovation and creativity. This exploratory research work was intended to investigate and measure factors contributing to employee silence such as leadership style, communication process and organizational culture and their impact on organizational commitment.

Keywords – Employee silence, leadership style, communication process, organizational culture, organizational commitment.

INTRODUCTION

To cope with the customers demand and quality assurance issues in the competitive market, firms have raised their expectations from their employees in term of taking initiative, bringing creativity and innovation, bearing the responsibility and speaking up for the betterment of the firm. (Quinn and Spreitzer, 1997). For the survival, organizations are in dare need of workforce who can respond to the challenges quickly and wisely, can raise their voice against issues as well as can provide information and who can stand up not only for their own welfare but for the whole team. On the other hand they are employees who decide when to speak and when to remain silent. They use silence or voice approach to show their willingness or unwillingness to participate in organizational decisions making process (Pinder and Harlos, 2001). As mentioned by many researchers (Van Dyne & LePine, 2003, Whiting, Podsakoff & Pierce, 2008), voice and silence are connected to organizational citizenship behaviors, thus leading to influencing organizational commitment. Finally it is said that voice have a positive effects, while silence, have the negative effects on the firm performance.

According to Cuellar, Keil & Johnson, (2006), employees uses silence approach as a self defense mechanism, which is called Deaf Effect or the Mum Effect (Smith, Keil & Depledge, 2001). Thus it is sarcastic that in critical economic situations, when innovation and creative ideas are required, employees refuse to share their views, resulting in decreased organizational performance. Moreover, Schlenker & Weigold, (1989); Van Dyne et al., (2003), describes defensive silence as “intentional and proactive behavior that is intended to protect the self from external threats”. On the other hand, sometimes employees prefer to raise their voice. Meyerson, (2001), in his research work quoted Cynthia Cooper, an employee at WorldCom and Coleen Rowley from the FBI, who were awarded the title of 2002 People of the Year, by Time Magazine for their bravery to raise voice in front of their top management regarding problems they noticed in their organizations, hence it depends when employees choose to speak and to remain silent.

Perlow and Williams (2003) declared in their research work that the phenomenon of employee silence is one of the critical organizational concerns yet little empirical work is done in the field (Milliken et al., 2003; Van Dyne et al., 2003). The work of Morrison and Milliken (2000) to introduce the concept is notable. They identified the integral organizational elements leading to employee silence behavior. These elements, such as decision-making processes, management processes, and culture, demonstrate the silence behavior of each worker as to how they perceive it. For the purpose of this study, the organizational characteristics leading to employee silence were organizational culture, communication process, leadership style and organizational commitment.

To ensure that decision makers are informed and consider all sides to an issue while change management process, employees are motivated to speak and be a part of open and honest communication process (Nemeth, 1997). This open communication highlights the problems and difficulties faced by the workforce. A part from all this literature citation, employees complaint that their organizations do not encourage free flow of information thus result in silent climate in the firm (Beer and Noria, 2000). Moreover, one of the main hurdle faced by the companies towards organizational development was cited to be lack of formal upward feedback mechanism and trust, as well as centralized decision making process, due to which employees choice is to remain silent, that is as discussed by Morrison and Milliken (2000) employee’s choice to ‘‘withhold their opinions and concerns about organisational problems’’. For the purpose of this study communication and input by the employees is referred to:

(1) Employee’s communication with their co-workers and to the top management of their complaints in a work-related issues; and
(2) Employees participation in the decision-making processes of the firm (McCabe and Lewin; 1992).

For the sake of this paper employees refers to all organizational members regardless of their position (management, subordinate), whereas while talking about leadership, it refers to anyone in the firm having authority to take decision, regardless of their position.

Just like previous researches, this paper also focuses on organizational culture and prevailing norms as a source of employee silence. Followed by the concept of Van Dyne *et al.* (2003), this paper highlights procedural injustice as one of the factor of silent behavior as well as negative consequences by the top management associated with raising the voice. Senge (1999) continues that in most of the organizations environment of fear and silence are the values to be followed. This restriction towards openness consequent in keeping silent, resulting in dissatisfaction and creates ''silent'' culture for the upcoming workforce. Moreover, accepting the argument of Morrison and Milliken (2000) this paper states untrustworthiness and lack of loyalty as the negative consequences attached to raising voice, perceived by the top management. However, Oppel (2002), mentioned the case of Enron in his research stating that employees at Enron was adopt to the culture of remaining silent, although knowing the facts about the drop down of the business finances, as they were afraid to raise their voice to the top management due to the negative consequences. The justice literature has linked voice to the presence of due process procedures that enhance justice judgments and facilitate employee participation in decision-making (e.g., Bies and Shapiro, 1988).

Vakola and Bouradas (2005), declared that the leader is the one who can fight against the silent culture and create a culture of openness. He further stated that leader's attitudes toward silence is the strongest forecaster of silence climate followed by top executive attitudes and organizational communication process. But in times of depression and hard times leader's ability to sense employee voice decreases, consequently employees starts feeling hesitation to share information and their opinions, thus resulting in dissatisfaction (Pinder & Harlos 2001, Peirce, Smolinski & Rosen 1998). In contrast some other researchers (Kassing, 1997; Redding, 1985; Seeger and Ulmer, 2003) presents a different view and mentioned that leaders are mostly ready to hear about the problems faced by the employees but employees on the other hand are afraid to speak due to expecting negative reaction from the top management (Nemeth, 1985; Sprague and Ruud, 1988). According to Wilson and Harrison, (2001), the reason behind employees silent behavior is they doesn't want to contaminate their image in the eyes of higher authorities. Many worker fear retaliation that could be in form of harassment, lower performance appraisal ratings and decreased promotion possibilities (Feuille and Delaney, 1993) and also being fired from the job (Westin et al., 1981). This paper focuses on the leader's positive attitude towards his team members, to eliminated the climate of silence.

On the basis of the above arguments this exploratory study aims to identify the influence of organizational factors, such as organizational culture, leadership style and communication process, leading to the employee silence and consequently its impact on the organizational commitment. Past researches have proved a negative relationship between silence behavior and organizational commitment. Therefore it is important for the organization to recognize when employees are contributing voice or silence to the

organization's dialogue. To investigate this cause and effects relationship researcher planned to survey 200 employees in any organization.
Thus researcher tries to find answers for the following questions:

Research Question 1. How does leadership style contributes to employee silence.

Research Question 2. How does organizational communication process contributes to employee silence.
Research Question 3. How organizational culture does contributes to employee silence.

Research Question 4. How does employee silence effects organizational commitment?

The rest of the manuscript is arranged as follows. In the subsequent section, the current literature on the employee silence, organizational characteristics influencing employee silence behavior such as communication process, leadership style and organizational culture and organizational commitment is reviewed, pursued by a concise discussion about the methodology used. After that, the theoretical framework of employee silence and its impact on organizational commitment is presented, followed by some statistical analysis of the elements involved along with the interpretation of data and suggestions about how organizations can deal with the issue of employee silence finally leading towards achievement of organizational commitment. In the end, the conclusion, the implications and recommendations for future study are discussed.

THEORY AND HYPOTHESIS

Although, leaders have faith that they motivate their employees to share problems and express ideas but conversely, they use indirect procedure to create climate of, which Hennestad (1990), described as ''double bind leadership''. Few tactics to create silence climate used by the leaders are to make employees realize that they are inexperienced to give ideas and are not authorized to take decisions (Izraeli and Jick, 1986). Consequently, employees prefer to remain silent and do not speak up to their leader in any case (Dickson and Roethlisberger, 1966).

Moreover, evidences have been provided regarding the negative response of leaders to negative feedback which is mostly avoided or postponed, also when provided it is discarded (Fisher, 1979). In addition, Argyris and Shon (1978) states that leaders do so to prevent embarrassment, threat and feelings of incompetence. Thus, they don't trust their employees as well as the reliability of their feedback. Previous literature provided the evidence that organizations have to incur high cost due to lack of leader's ability to encourage openness among employees (Sugarman, 2001; Collins, 2001).

On the basis of above literature, it is found that this sort of leader's behavior results in employees silence behavior. Therefore, it is hypothesize that:

H1. Lack of leader's ability to motivate employee to speak up is positively related to employee silence behavior.

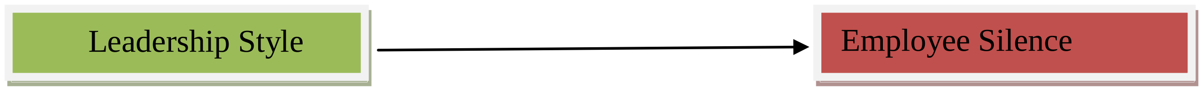

Figure 1: impact of leadership style on employee silence behavior

According to Senge (1999) sometimes within organization such culture and norms are developed in which employees tries to solve their problems by their own and are least concerned about other functional areas. Also they don't discuss expose their problems for open discussion and only share them in private. Hence it result in dissatisfaction and environment of fear and silent is promoted and this silent norms and behavior is made available to the newcomers, to follow.

Moreover Argyris (1977) mentioned that there are some defensive organizational norms and that do not encourage employees to speak up what they feel, thus they are forced to remain silent although they know the reality about certain issues and can suggest solutions (Morrison and Milliken, 2000). In addition, Employees are often afraid to raise voice as it may be considered as lack of trust and loyalty from employee side (Morrison and Milliken; 2000), and also due to the negative consequences generated by the top management, such as, job harassment, low performance appraisal ratings and less chances of promotion (Feuille and Delaney, 1993) and high risk of termination (Westin et al., 1981; Nemeth, 1985; Sprague and Ruud, 1988; Wilson and Harrison, 2001). Many researches mentioned culture procedural injustice in an organization as a factor leading to employee silence (Bies and Shapiro,1988). As a result of the above discussion, it is proposed that:

H2: Supportive organizational culture and norms are negatively related to employee silence.

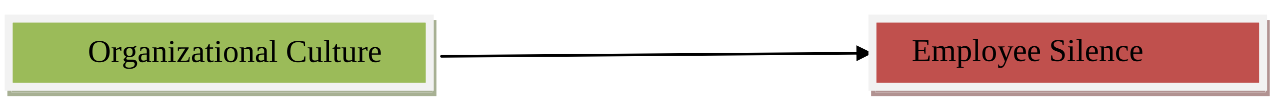

Figure 2: impact of organizational culture on employee silence behavior

Unwillingness to express idea, information sharing and providing feedback adversely affects level of employee commitment. Moreover, as stated by Beer and Eisenstat (2000), it have the potential to negatively affect the organizational decision making process. Due to the silence climate, change management process fails and positive communication climate is the only key to the success of the organization (Appelbaum et al., 2000). Additionally, Morrison and Milliken (2000) suggested few organizational practices that leads to the climate of silence within an organization such as centralized decision making process along with absence of formal upward communication process, whereas Schweiger and Denisi (1991) indicated free flow of communication as the practice to be adopted to avoid employee silence behavior.

Open Communication process refers to trust and openness in sharing information and feeling of being fairly heard. Previous research work have shown that presence of formal upward communication mechanism leads to employee's participation in decision making process and increased level of trust on top management (McCauley and Kuhnert, 1992; Smidts et al., 2001). Some researches resulted in a positive relationship between the free flow of information and organizational productivity as well as absenteeism rate (Schweiger and Denisi, 1991).

Thus on the basis of the above literature, it is proposed that:

H3. Absence of free flow communication mechanism and centralization of decision making process is positively related to employees silence behavior.

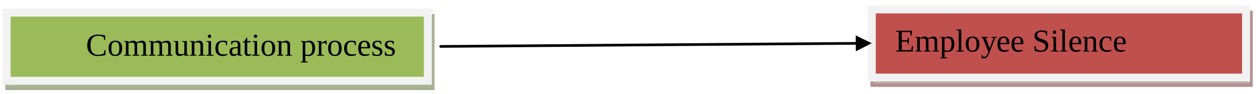

Figure 3: impact of communication process on employee silence behavior

Organizational commitment is defined as ''the relative strength of an individual's identification and involvement in a particular organization'' (Porter et al.,1974). According to Mowday et al. (1982), commitment is an attitude, that highlights the strength of relationship among an employee and an organization. It is said to be a state in which an individual relates himself with a specific organization and its objectives. It is mentioned that organizational commitment is a phenomenon that tries to develop an exchange linkage between an individual and an organization in which individuals identifies themselves to the particular organization in return for certain rewards from the firm (Buchanan, 1974).

Workers join organization, keeping in mind certain rewards they can get out of working there and expect healthy working environment where they can make best use of their abilities and can freely express themselves. If provided with the opportunities, their level of commitment increases. The organizational Commitment refers to ones acceptance of organizational norms and goals, and willingly putting hard efforts in favor of organization success, and finally wishes to stay with the organization for a longer period of time.

As mentioned by Morrison and Milliken (2000), employee silence creates sentiments of not being worthwhile, and thus in low level of satisfaction, commitment and motivation. In addition, Oliver (1990) commented that dissatisfaction, de-motivation and lack of organizational commitment have negative after effects inform of high turnover rate and job stress. Hence, it is hypothesized that:

H4. Employees' silence behavior has a negative impact on organizational commitment

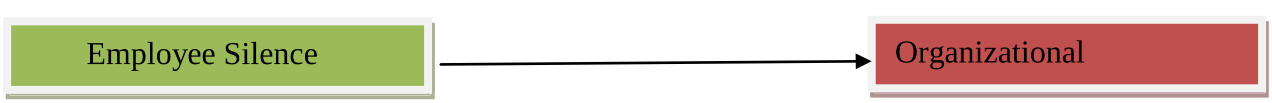

Figure 4: Impact of Employee Silence Behavior on Organizational Commitment

On the basis of the above mentioned review of literature, the following theoretical framework is drawn to highlight the variables involved in it.

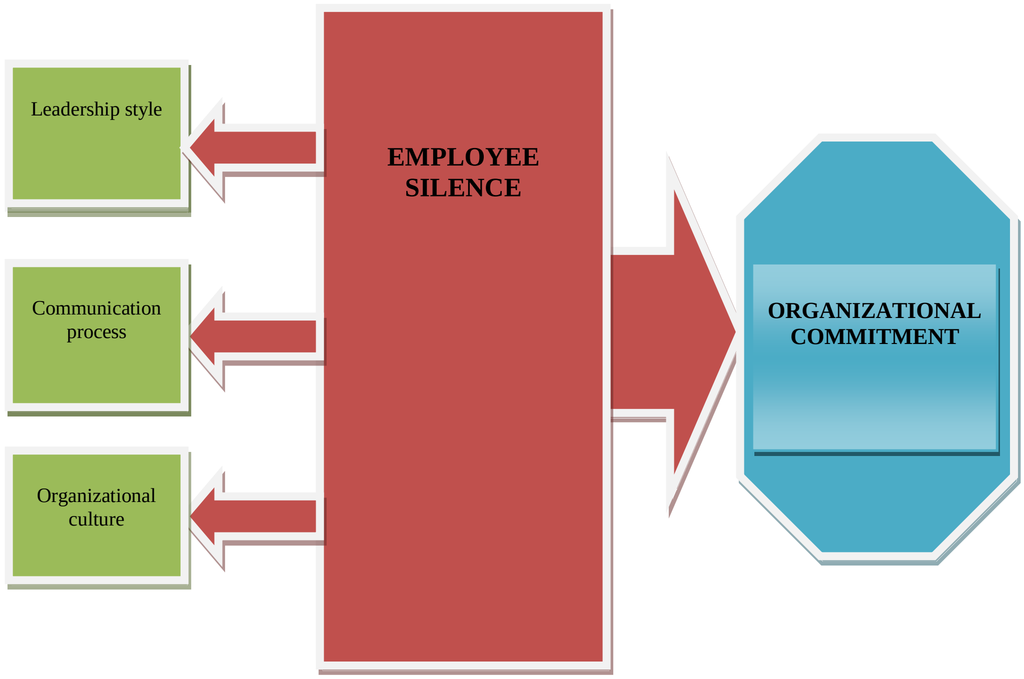

Figure .1: Model representing relationship between independent and dependent variables

- Dependent variable
- Independent variable
- Constructs of Independent variable

METHODOLOGY

The necessity to examine the impact of employee silence on organization commitment through leadership style, communication process and organizational culture, directed to the generation of this study. It opts for the NGO (Non Governmental Organization) sector of Pakistan, particularly Peshawar, which is one of the vital and most rapidly developing sector of the region.

The NGO's, such as CRDO, USAID, UNDP, DFID and GTZ, working in Peshawar, Pakistan were selected as a sample and data was collected from the respondents using random sampling technique. Respondents in the present study were 200 people from different NGO's in the city of Peshawar, Pakistan. Among 200 respondents, 87 **%** respondents were male and 13% female. Among them 37% belonged to top management and 63% to middle management, all of them having job experience of two years and above. 36% fall in the salary range of 20,000 to 49,000, 31% were receiving salary between 50,000 to 79,000, 24.5% were earning between the range of 80,000 to 119,000 and among them 8.5% were receiving salary more than 200,000.The age median was 33 years old with a minimum of 25 and a maximum of 40 years of age. All of the respondents were holding Master level degree.

For the sake of gathering relevant information a formal letter of permission was sent to the head of each selected NGO to get permission for collecting data from their employees, through the questionnaire.

It was made sure to the respondents that collected information will only be used for the academic purpose; also the confidentiality of the data was ensured.

The structured questionnaire was developed on account of literature quoted. A pilot-testing of the questionnaire was made by engaging the small group of people and corrections were made on the basis of suggestion made by them.

Five-point Likert-type scales ranging from '1' =Strongly agree, '2' = Agree, '3'= Neutral, '4' = Disagree and '5'= Strongly Disagree, was used for coding the data, throughout the questionnaire.

For the sake of this piece of research work employee silence was taken as an independent variable, with the constructs of leadership style, communication process and organizational culture. On the other hand organizational commitment was considered as the dependent variable.

Employee silence

Many measures are present in the literature to investigate employee silence but for the sake of this paper, the empirical measure developed by Maria Vakola, Dimitris Bouradas, (2005), was used, thus there is substantial support of the reliability and validity of this measurement. Four items were presented in the questionnaire, using five point likert scale to measure this phenomenon.

Leadership Style

This construct was measured using five items, adapted from a questionnaire by Maria Vakola, Dimitris Bouradas, (2005), keeping in mind its reliability and validity, with response options ranging from 1 (strongly agree) to 5 (strongly disagree).

Communication Process

This construct used the scale developed by Maria Vakola, Dimitris Bouradas, (2005), hence ensuring reliability and validity. Five items were used with the response options ranged from 1 (strongly agree) to 5 (strongly disagree).

Organizational Culture:

Four items were developed by the researcher on the basis of the literature cited, using five point likert scale ranged from (strongly agree) to 5 (strongly disagree).

Organizational Commitment

This variable was measured with five questions through a five point scale, with response options ranging from 1 (strongly agree), followed by the work Maria Vakola, Dimitris Bouradas, (2005). Therefore there is considerable evidence of the validity and reliability of this measurement.

The methodology used in this causal study was based on the primary data as data was directly collected through questionnaire from the respondents. This first hand information was collected personally by the researcher and assistance was provided to the respondents to fill the questionnaire without any confusion hence decreased the problem of common biasness.

Furthermore, the researchers made some observations during the survey about the variables involved in the study and presented recommendation as well as draw the conclusion. The data collected was coded and statistical tools were applied using SPSS V. 17 and correlation and regression analysis techniques was used to extract relevant results.

RESULTS

Table II presents descriptive statistics and reliability estimates of the study's measures. The inter-correlation matrix of all measures is presented in Table III. More analytically, H1 suggested that employee's silence behaviors will be positively related with leadership style. In support of H1 the results demonstrated that there is a positive correlation between lack of leader's ability and employee silence ($r = .038$). Further, H2 suggested that there will be a negative relation of supportive organizational culture and norms with employee silence, which was proved by the results, ($r = -.094$). Also, H3 suggested that employee's silence behavior would be positively correlated with absence of formal upward communication and centralized decision making process, which was confirmed ($r = .629$).

TABLE II. Descriptive statistics of the study

MEASUES	N	No. of ITEMS	MEAN	SD
Leadership Style	200	5	2.34	.383
Communication Process	200	5	2.46	.467
Organizational Culture	200	4	3.08	.894
Employee Silence	200	4	2.21	.602
Organizational Commitment	200	5	2.28	.427

TABLE III. Inter Correlation Matrix of The Study's Variables (N= 200)

	Employee silence	Organizational commitment	Leadership style	Communication process
Employee silence				
Organizational Commitment	.282**			
Leadership style	.038.	-.007		
Communication Process	.629**	.497**	.162*	
Organizational Culture	-.094	.050	.378**	-.165*

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The regression analysis was conducted to further explore H1, H2 and H3 (Cohen and Cohen, 1983), entering employee's silence behaviours as the dependent variable and leadership style, communication process and organizational culture as independent variables. The results of the regression analysis, table IV, showed that availability of communication opportunities is the strongest predictor of employee silence behavior (R2 =0.396, p <0.00), followed by supportive organizational culture to silence (R2 = 0.009, p< 0.00) and participative leadership style (R2 =0.001, p< 0.00). The results of the regression analysis are summarized in Table IV.

TABLE IV: Regression analysis of the Organizational characteristics on employee silence

MODEL	Beta	t	Sig.
		7.810	.000
LEADERSHIPSTYLE	.038	.542	.589
COMMUNICATIONPROCESS	.629	1.21 3 11.395	.227 .000
ORGANIZATIONALCULTURE	-.094	15.730 -1.327	.000 .186

Dependent Variable: Employee Silence

H4 suggested the positive correlation (r = .282), between the absence of employee silence behavior and level of organizational commitment, which was confirmed by the analysis, as shown in Table III. A regression analysis was conducted to further explore the relationship among organizational commitment, and employee silence constructs, entering organizational commitment as the dependent variable and leadership style, organizational culture, communication opportunities and employees' silence behavior as independent variables. The results of the regression analysis showed that availability of communication opportunities to silence is the strongest predictor of organizational commitment (R2 =0.247, p <0.00). This finding is supported by the results of Maria Vakola and Dimitris Bouradas, (2005), that predicted the relationship between these two variables as (R2 = 0.25, p<0.00). The finding showed that organizational commitment is predicted by employee silence (2 = 0.080, p<0.00), followed by relationship between supportive organizational culture and organizational commitment (R2 = 0.002, p< 0.00) and participative leadership style (R2 =0.000, p< 0.00), the further regression results are shown in Table V.

TABLE V: Regression analysis of the Employee silence and its constructs on organizational commitment

MODEL	Beta	t	Sig.
		12.189	.000
LEADERSHIPSTYLE	-.007	-.103	.918
COMMUNICATIONPROCESS	.497	8.189 8.067	.000 .000
ORGANIZATIONALCULTURE	.050	20.217 .700	.000 .485
EMPLOYEE SILENCE	.282	16.524 4.142	.000 .000

Dependent Variable: Organizational Commitment

CONCLUSION AND RECOMMENDTIONS

This study examined the relationship among employee silence behavior and organizational commitment, through organizational characteristics of leadership style, communication process and organizational culture. Results showed that there is a positive correlation between leadership style, communication process and employee silence and a negative correlation between employees' silence behavior and organization culture**.** This finding is consistent with the relevant proposition by Morrison and Milliken (2000) and Maria Vakola, Dimitris Bouradas, (2005). Threat of facing negative after effects and being imaged as a untrustworthy and disloyal by the top management, lack of free flow of upward communication, centralized decision making process and lack of leaders ability to encourage employees to raise voice, are the factors creating silence climate in the organization hence decreasing the organizational commitment. Communication process was found to be the strongest predictor of silence behavior and less by the other factors such as leadership style. This clearly state that employees behavior is directly influenced by the opportunity provided to speak up and share problems with the top management. If employees are encouraged to participate in decision making process, they feel motivated to raise voice and benefit organization in all matters.

Result states a positive correlation between absence of climate of silence and organizational commitment. This finding clearly reflects that if employees remain silent about the issues and problem of the organization it will adversely affect their commitment level towards the firm they belong to. The results of the study indicated that the strongest predictor of organizational commitment is communication process. This finding is supported by the earlier research work (Putti and Aryee, 1990), and Maria Vakola, Dimitris Bouradas, (2005), highlighting that among all organizational processes, clarity of communication process have a positive influence on the commitment level of employees. When employee feels that he can easily communicate with the higher authority, and share everything in trustworthy environment, he gets more attached to the organization and develop a sense of belongingness, hence takes decision to associate himself with the firm for longer period of time.

Mostly it is noticed that employee silence behavior prevails to avoid its negative consequences for individuals as well as for the organization. For instance, while employees often remain silent about the bad news, positive news frequently flow upward on communication channel to the top management. Consequently a lot of important information is lost and yet not delivered to the top management thus, weakening their decisions ability. On the other hand it does adversely affect the working of the employees (Beer & Eisenstat, 2000; Morrison & Milliken, 2000; Nemeth, 1997; Tamuz, 2001). These results can have severe long-term after effects for the employees as well as and for the business.

The critical question that needs answer is that how it can be ensured in the firm that employees will raise voice at the time they are confronted with problem. The leader must realize that to develop an organization employees must be encouraged to provide information regarding the issues faced and must share new ideas and innovations. To do so, employees must be provided with an environment where they can speak up and truly state the issues faced by them Edmondson (2003). If employees feels that their supervisor do not give attention to what they are saying or he is least interested in the information provided by them, they will be discouraged to raise their voice or to participate in problem solving. Moreover leaders should try to change the mindset of the employees that they will be imaged negatively if they speak up, and should appreciate those who dare to inform organization regarding the issues. Moreover, managers should develop such a system that allows employees to talk about sensitive problems in confidentiality. Also, a person could be designated who can present the ideas of the subordinates to the top management Milliken et al. (2003). Theses suggestion could lead to the development of an environment that promotes employees to raise their voice.

To develop and environment that encourage employees to speak up is to provide them with adequate communication opportunities. There should be free flow of upward communication and decision should be taken on the participation of the employees.

To compete in the business world, firm not only need to recruit human capital but also to retain it. Retention is gained by developing a high sense of commitment among employees. Employee silence behavior negatively affects organizational commitment. To avoid silence behavior and to achieve high commitment level room for open discussion of problem and ideas should be given and organizational culture and norms should appreciate speaking up behavior.

LIMITATIONS OF THE STUDY

This study presents a new empirical contribution in the field of research, however consist of certain limitations. Firstly, the data was collected through using one-shot questionnaire methodology to measured perceptions of employees regarding the variables under consideration and didn't rely on other sources of primary data. This generates the possibility for perceptual bias that is one of the common problems connected with data collection (e.g., Premeaux & Bedeian 2003). It may also create self-report bias because respondents answer the questions on the basis of their own mind set. In addition, the study may be contaminated due to the social desirability biasness that caused respondents to answer the questions positively to represent good self image.

It has been noticed that there are a lot of factors leading to employee silence in the organization; however for the sake of this study few constructs were considered. Thus, it is suggested to conduct future researches with the addition of other constructs.

Another limitation of the study is that it was a one shot study and small sample was involved but it could be replaced by a longitudinal study in future along with the larger sample size, to further explain the concept in detail. Moreover the existing model did not include the moderate variable, thus it is beyond the scope of this paper. Future study could also add moderate variables in the existing model, to see its effect on the relationship between dependent and independent variable. Finally, it could be said that the approach of this paper is not comprehensive but still provides an initial foundational framework to guide future research in the same field.

FUTURE IMPLICATIONS

The climate of silence influences the firm's ability to identify mistakes, thus negatively affecting the organizational performance. Tamuz, (2001) expressed that due to this silence behavior employee my get the victim of stress, depression, and dissatisfaction. Therefore it is important to answer the question that how firms can generates an environment in which employees feel comfortable to speak regarding issues faced by them. On the basis of the findings of the study few significant implications are discussed in this section.

The result showed that leader's ability to encourage employees to raise voice, formal upward communication and participative decision making process, and healthy organizational culture are positively related to employee silence behavior, thus organizations need to develop such a climate where all these practices takes place smoothly so that high level of organizational commitment could be achieved. More particularly, leaders could encourage employees to participate in open communication and decision making processes, which was found to positively influence the employee silence (Morrison and Milliken 2000). Several organizational characteristics, that facilitates the above leader's behavior to take place, may discourage the climate of silence as it is shown in the study of Pierce et al. (1984), that leader's attitude towards the employees affects the working behavior of the subordinates due to the power held by them. It also has the power to develop trustworthy behavior among employees hence enhancing their trust and loyalty towards the organization. This trustworthy behavior on part of employees could be considered as a source of competitive advantage by the top management.

In addition, open communication and feedback channels, availability of accurate knowledge, free flow of thoughts and ideas (Schweiger and Denisi; 1991), are important elements to be considered by the mangers in order to cope with employee's feeling of uncertainty, job insecurity and job stress which can obstruct the change management process and also because the firms with the centralized and formal communication channel limits the development of organizational commitment.

In todays fast pace business world, firms are moving towards a flat and team-oriented organizational structure, which highlights the importance of improving level of commitment among employees at all levels, in order to achieve organizational goals (Mowday et al.; 1982). Moreover, as stated by Morrison and Milliken (2000), climate of silence leads to lack of organizational commitment as employees develop the feelings of not being valued, and creates cognitive dissonance among workforce. In addition, Oliver (1990), mentioned that the above factors results in adverse outcomes for the organization such as high turnover rate, increased stress level and dissatisfaction.

This study in hand presented a comparatively new area in the field of organizational behavior and provided evidences that employee silence behavior, created due to poor leadership style, lack of open communication process and defensive organizational culture and norms, adversely affect organizational commitment. While one may not disagree with the causal justifications of the findings, because of the research design implement, the results propose a noteworthy insight in understanding the impact of employee silence on organizational commitment.

RESEARCH LIMITATIONS

The study in focus was one shot study, that could be further elaborated as longitudinal study to get more deeper insight into the phenomenon under study. The survey of the study only included few employees of the organization that could be further increased to generalize the study.

PRACTICAL IMPLICATIONS

The methodology of this paper could be employed by the firms to discourage and handle employee silence and to explore the factors causing silence climate thus raising organizational commitment among the employees.

SOCIAL IMPLICATIONS

This research also has implications for organization that want to achieve superior organizational performance through innovation and creativity. Moreover organizational commitment could be achieve through encouraging employee to share their ideas for the betterment of the firm. Participative leadership style could result in better involvement of employees in decision making process. Further if employees know that they can easily communicate their issues to the co-workers and top management and would be heard, such sort of conducive organizational culture develops high level of commitment.

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Questionnaire

Study on "overcoming employee silence to achieve organizational commitment"

Within organizations employees often need to decide whether to speak up or remain silent, which means whether to share or withhold, information, and ideas necessary to the success of organization. This decision by the employees has a direct effect on the organizational commitment.

This study entitled "overcoming employee silence to achieve organizational commitment" is conducted for the academic purpose that aims to investigate the causal relationship between the employee silence and organizational commitment through leadership style, organizational communication process and organizational culture. Your honorable self in requested to fill the attach questionnaire and be the part of this study by providing unbiased and valid information. Thank you for your time. Please feel free to contact if you have any problem in understanding the questions.

QUESTIONNAIRE

It is to ensure all the respondents that this information will be kept confidential and will not be used for any other reason except this research work. Your honest cooperation in this regard will be highly appreciated.

Note: encircle the appropriate choice for the below questions.

DEMOGRAPHICS

Gender: Male: Female

Age: Below 25: 25-40: Above 40

Qualification: Ph.D ; Master ; Bachelors ; Other

Management: Higher; Middle ; Lower

Pay: a) 20,000 ------49,000 b) 50,000-------79,000 c) 80,000-------119,000 d) 120,000 and above

Work Experience: a) Less than 6 months; b)6 to 1 year; c)1 to 2 year d) 2 and above

Note: Tick the appropriate choice for the below questions, where 1 = Strongly agree, 2 = Agree , 3 = Neutral, 4 =disagree, 5 = Strongly disagree.

	LEADERSHIP					
S.NO		1	2	3	4	5
1	I believe that my supervisor handles conflicts well among his team members.					
2	I believe that my supervisor pays attention to what his team members say.					
3	I believe that my supervisor asks for criticism from his team members.					
4	I believe that my supervisor encourages his team members to express different opinions or disagreements.					
5	I believe that my supervisor considers different opinions or disagreements as something useful.					
	COMMUNICATION PROCESS					
1	Communication with colleagues from other departments is satisfactory.					
2	There is a systematic and organised exchange of knowledge and experiences among employees in this company.					
3	There is adequate communication between employees and top managers of this company. (formal upward feedback mechanism)					
4	Organisational changes are communicated adequately to the employees.					
5	The company keeps employees informed regarding its decision by involving them in decision mekinf process (no centralized decision making)					
	OGANIZATIONAL CULTURE					
1	I would not mind to work for a different company if the nature of the job Is similar					
2	I believe that company’s values and my values are similar.					
3	I am proud to say that I am working for this company.					
4	This company encourages me to put the maximum effort in order to be more productive.					

5	I am very satisfied with my choice to come and work for this company in comparison with other opportunities I had when I was looking for a job.					
1	I am afraid to raise voice to the top management as a response to procedural injustice.					
2	I don't express my disagreement regarding company issues, due to the negative consequences coming from the top management.					
3	If you disagree about company issues, it can be perceived as lack of trust and loyalty by the top management					
4	The norms and the defensive routine of the organization forces not to speak the truth to the supervisors					
	EMPLOYEE SILENCE					
1	You often express your disagreements to your managers regarding company issues.					
2	You often express your disagreements to your managers regarding department's issues..					
3	You often express your disagreements to your managers regarding your job.					
4	You often express your disagreements to your managers regarding issues related to job satisfaction such as salary, working conditions etc.					

The impact of macroeconomic factors on stock market returns: A case of lead-lag relationship of gold prices and index return

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Abstract

This paper focuses on the long term relationship between the macroeconomic variable and returns in Karachi stock exchange. The explanatory variable used in this study is gold prices. This study is conducted with an objective to whether the gold prices serve as an indicator of changes in stock returns or stock returns determine the hike in gold prices. For this study data is being analyzed for the time period from July 1997 to November 2011. Using Unit root test, Johansen and Juselius (1990) co-integration test and the granger causality (1995) tests, we have examined the long-run as well as the causal relationship between the gold prices and stock returns. The results confirm a significant long term and bidirectional causal relationship between gold prices and stock market returns. It suggests that the changes in gold prices determine changes in stock market returns. This study is significantly important for investors, financial analyst and policy makers because gold prices play an important role in determining stock market returns.

***Keywords*:** Karachi stock exchange, gold prices, APT.

Introduction

The economic activity, financial variables and performance of stock market have been the center of research after financial crisis and declined output. The relation between the stock return and the economic growth has been studied. A number of researchers studied and developed models for the relationship between real economic activity and the changes in US stock prices (Abdullah & Hayworth 1993; Fama, 1981; Roll, 1983), while other researchers examined such relation in UK (Poon & Taylor, 1991; Cheng, 1995). Still other researchers made an attempt to find the relation in Japan (Hamao, 1988; Mookerjee & Naka, 1995), Singapore (Maysami et. al., 2004) and Canada (Darrat, 1990). The relationship has been studied in the emerging economies. It has been documented in the results of all these studies that changes in macroeconomic variables have an impact on the stock market returns.

Researchers have incorporated different macroeconomic variables in their studies to examine the relationship. Pilinkus (2010) studied the relationship between stock market returns and macroeconomic variables like GDP deflator, net export and foreign direct investment. Intensity of trade relations, the degree of financial integration and the nature of exchange rate regime is studied in relation to stock market (Walti, 2005).

This paper studies the impact of gold prices on the stock returns in Pakistan. The variable of gold prices is chosen because any fluctuation in the gold price is important in determining the performance of stock market. So it is checked in this paper whether any change in gold prices has an impact on the stock returns. This paper is checking this relation in Pakistan for the first time.

The rest of the paper is organized as follows. Existing literature has been reviewed in section 2. Data used and the methodology applied has been discussed in the section 3. Results and conclusions are given in section 4.

Literature Review

To study stock market returns in relation to macroeconomic variables has been of interest to researchers and policy makers for so long. It is known that the stock market is very important in channelizing funds. Arbitrage theory of asset pricing presented by Stephen Ross in 1976 has been used to analyze the impact of macroeconomic variables on stock market returns. The impact of macro and micro economic variables has been supported by empirical testing. The earliest work on this theory is that of Nelson (1976). He studied the relation between inflation and stock market returns in USA and documented a negative relation. Chen et al. (1986) tested the APT by taking the macroeconomic variables and studied their impact on stock market in USA. Chan et al. (1991) used the earning yield, cash flow, size and book to market ratio of equity to predict stock market return in Japan. The results have revealed significant relationship between the variables and market returns. Gan et al. (2006) studied the relation between the macroeconomic variables and stock market return in New Zealand. They documented that the New Zealand stock market returns is affected by the macroeconomic variables like interest rate, money supply and real GDP. The same relation has been studied by incorporating the macroeconomic variables i-e inflation, interest rate and capital investment by Fama & Gibbon (1982) and impact of inflation rate and real economic activity has been studied by Geske & Roll (1983). They found the negative relation of the variables with the stock returns. Hamao (1988) and Mookherjee and Naka (1995) have analyzed the relationship in Japan and showed that a short run relation exist between the macroeconomic variables and the Japan stock market returns. Flannery and Protopapadakis (2002) found inflation and money growth as important variables in explaining the returns in stock market.

The relationship between stock market returns and the fundamental variables has been analyzed by the researchers in different countries. Cheung and Ng (1998) studied the relation in the stock market index of five countries and also checked their relation to the real variables like oil price, consumption and output. Moradoglu et al. (2000) investigated the relationship between macroeconomic indicators and stock market returns in nineteen emerging economies. They documented correlation between variables and returns in stock markets of these emerging economies. Garcia and Juarez (2010) investigated the impact of macroeconomic indicators of China and America on the stock market indices of three countries namely Brazil, Chile and Mexico. They documented that the Chinese macroeconomic indicators have become more important to influence stock market returns in Latin America.

The relationship has also been studied in developing economies. Consumer price index (CPI), industrial production index, foreign remittances, market price to earning P/E and monthly average growth have been used as macroeconomic variables to study their impact on stock market returns in Bangladesh by Ali (2011). He documented that the inflation and foreign remittances have negative relation and other variables have positive relation with stock returns. There is long run relationship between the Istanbul stock exchange and the macroeconomic variables used i-e changes in GDP, foreign exchange rate and current account balance (Acikalin et. al., 2008). Co-integration exists between money supply and stock market returns in Malaysia (Ibrahim, 1999). Agarwala and Tuteja (2007) examined the relation of the stock market returns and economic growth in India. Their result document a long run relation between developments in stock market and economic growth. Chancharat et al., (2007) investigated whether international stock market and different macroeconomic variables have an effect on the stock market of Thai. They found that Thai stock market is affected by the changes on stock markets of Singapore, Malaysia and Indonesia before the financial crisis and Singapore, Philippines and korea after the financial crisis of 1997. They also documented that oil prices have a negative impact on Thai stock market. The relationship has been analyzed in the Pakistani context by Nishat and shaheen (2004) studied the relationship among macroeconomic variables and Karachi stock exchange and found that significant positive relation exist between industrial production and stock market and significant negative relation between inflation and stock returns. Sohail and Hussain (2009) found that there exists long run relation between stock returns in Lahore stock exchange and macroeconomic variables. Significant relationship has been found among different macroeconomic variables and stock returns in Pakistan (farooq & keung, 2004; Mehar, 2005; Ihsan et. al., 2007).

Small amount of work has been done to examine the impact of changes in gold prices in stock market returns. Tursoy et al. (2008) has studied in combination with other macroeconomic variables the impact of gold prices on stock returns in Istanbul. Their results are consistent with the study of Poon and Taylor (1991) that the pricing relation between stock returns and macroeconomic variables is not significant. Bayuksalvarci (2010) examined the relation of macroeconomic variables including gold prices to its impact on Turkish stock market returns. Mishra et al. (2010) examined the relation between the domestic prices of gold in India and its impact on stock market returns and concluded by documenting that a long run equilibrium relation exist between the variables.

This paper checks the linkage between stock market and the gold prices. The direction of the causality has also been checked.

Methodology

This study aims to determine the relationship between the changes in gold prices and stock returns. Monthly data for the variables are taken from 1997 to 2011. The dependent variable of this study is monthly stock returns of Pakistan. Data for stock returns is taken from Karachi stock exchange 100 index. The independent variable of the study is monthly prices of gold. The gold price data is taken in US dollar for the reason that any change in prices of gold in US dollar has an effect on the prices of gold in Pakistan. The data for gold is taken from World gold council website. The data is analyzed using ADF, co-integration, granger causality and impulse response function.

Data analysis and discussion

Unit root test is used to check the stationarity in the data. For that purpose Augmented

Table 1
Null hypothesis: variable has a unit root.

	At Level		
Variables	ADF statistics	t- value	Probability value
Stock Returns	-15.1324	-2.87831	0.000
Gold prices	-12.6062	-2.87831	0.000

Dickey Fuller (ADF) test is used. Data is stationary when it has no trends in it. The results of the ADF test show that variables are stationary at level. It can be seen in table 1 that the t-statistics values are greater than 2 (in absolute terms) and p-value is less than 0.05, so we reject the null hypothesis and document that the data is stationary.

Johansen's and Juselius multivariate test is then applied to check the long term relation between the variables. We find from the results that long term relation exists between the stock market returns and gold prices.

Table 2

HypothesizedNo. of CE(s)	Eigen value	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.239081	65.59857	15.49471	0.0000
At most 1	0.112705	19.96952	3.841466	0.0000

As it can be seen in table 2 that long term relation exist between the variables, as the trace statistics value are critical at 0.05 as shown by the probabilities. We now use the granger causality test. Granger causality is the test of lead and lag. It tells which variable comes first. So once we have found that relationship exists, we now find the direction of relationship. Results of granger causality show that the F- stat value for gold return with index return is greater than 2 and p-value is less than 0.05, so we reject the null hypothesis and conclude here that gold returns granger cause index returns. On the other hand the granger causality value for index return with gold return is less than 2 and its p-value is 0.25729. So we cannot reject the null hypothesis in this case. So we concluded that the direction of relation is from gold prices to stock returns. Any change in prices of gold will cause change in the stock market returns.

Table 3

Null Hypothesis:	F-Statistic	Probability
GOLD_RETURN does not Granger Cause INDEX_RETURN	3.34427	0.03769
INDEX_RETURN does not Granger Cause GOLD_RETURN	1.36878	0.25729

Conclusion and future research direction

This papers aims to study the relationship between the macroeconomic variable i-e gold prices and the returns in stock market. The variable of gold prices has its importance in determining the changes in stock returns as after capital market; the investors are now looking towards the gold market. So this paper is an attempt to study the relation. Empirical results reveal that there exists long term relation between these variables. Moreover the direction of relation is from gold prices to stock returns. Any change in the gold prices has an effect on the stock prices.

Future studies can be conducted by incorporating other variables in addition to gold prices to examine the impact in stock market. This study has used the data for fourteen years. Future studies can be conducted by using data for an extended period for generalizing results.

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Impact of Macroeconomic Variables on Stock Returns of Chemical Industry in Pakistan

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Abstract

This study investigates the impact of macroeconomic variables on stock returns at the industry level. The macroeconomic variables used in this research are interest rate, GDP growth rate, exchange rate, and inflation rate. This study uses the yearly data of chemical industry listed in Karachi Stock Exchange. Yearly data has been collected from 2002 -2009. The effect of macroeconomic variables on stock returns is studied with the help of multiple linear regression analysis. This research reveals a significant positive relationship between stock returns and exchange rate. It has also been observed that inflation negatively affects stock returns and the relationship is significant. On the other hand, GDP positively affects stock returns of chemical industry but relationship is insignificant. Similarly, it has been found that interest rate negatively affects stock returns but the relationship does not appear to be significant.

Keywords**:** Stock returns, Macroeconomic variables, multiple linear regression model, Karachi Stock Exchange.

Introduction

Finance theory demonstrates that investors put their money in banks or buy stocks to get something extra for the money invested. Investor always desires for high returns and less risk (Downs, 2005). Studies prove that high returns are attached with high risk. The choice of investors regarding which security to invest in depends on their risk preference. According to Keown, Martin, Petty and Scott (2005) there are two types of risk i.e. systematic and unsystematic risk. According to CAPM theory, returns which investors receive are only for the non-diversifiable risk involved. Chiou and Robert (2007) claims that administration of risk is important for success of the business.

Stock market is a secondary market where investors buy and sell out securities. On the basis of studies mentioned in the literature section, long list of factors that can affect stock prices i.e. EPS, DPS, firm size, future plans, profitability, GDP, interest rate, CPI, exchange rate, and Government regulations, etc are determined.

Previous studies mentioned in the literature show that fluctuations in macroeconomic variables affect economy either directly or inversely. GDP, inflation, unemployment rate, interest rate represents current and future performance of the economy. GDP increases with the growth of the economy and vice versa. Inflation rises when economy is growing due to increase in demand for goods and it is normally lower down in recession of the country. But sometimes inflation continues to rise during recession due to growth of money supply. High real interest rate negatively affects economic growth because it increases borrowing cost and shrinks profits on investments. Rise in interest rate lower borrowings and promote savings which leads to little investments and expenditure. Other consequence of high interest rate is appreciation of the value of domestic currency which leads to decrease in exports. GDP decreases, currency depreciates, and inflation goes up in country facing recession. These and other macroeconomic variables affect companies in negative manner because companies incur losses, incapable to cover their costs of business due to decrease in sales, high inflation and money supply.

Literature Review

It has always been disputed that macroeconomic factors influence stock prices and in turn stock return. Government policies (fiscal and monetary) have vast influencing power on financial activities as well as on stock market. This encourages researchers to explore the consequence of macroeconomic variables on stock returns.

Cheng (1995) find out that supply of money directly affects stock returns while interest rate and returns on stocks have inverse relation in UK stock market. While, Hussain and Tariq (1999) recommend that stock prices is affected by money supply (M2) in short and long period of time. However, Mukherjee and Naka (1995) examined the relationship through application of VECM on monthly data of Tokyo Stock Exchange and determined that share prices react positively to change in exchange rate, industrial production (GDP) and money supply whereas association between share prices and inflation and interest rate is negative.

Another study conducted by Nydahl (1999) opines that exchange rate significantly affects stock returns of 26% of the firms. He further found out that more sensitive to exchange rate are those companies which are more dependent on outside country's transactions while companies which are employing derivatives are nearly covered from risks of exchange rate. However, Mansor (2000) explored associations between share prices and exchange rate in Malaysia stock market. He discovers exchange rate is causal correlated with share prices in the short run but no relationship in the long run. In another research, conducted by Griffin and Stulz (2001) determined that there is insignificant economic importance of variations in exchange rate on stock value of industries because firms use different techniques to turn away this risk. However, Joseph (2002) studied the outcome on chemical, Pharmaceuticals, engineering, and electrical industries' returns on stocks of interest and exchange rate in UK. He concluded that interest rate deviations highly affect firms as compared to exchange rate.

Maysami and Koh (2000) stated that inflation, rise in money supply, change in interest rate have co-integrating relationship with fluctuations in Singapore stock exchange both in short and long period of time. While, Ralph and Eriki (2001**)** determined that Inflation affect stock prices negatively examined in Nigeria stock market utilized information of 18 years (1980-1997). They also stated that financial deregulations, GDP, interest rate, and money stock strongly moves share prices. Kimyaz (2003) determined that firms listed in Istanbul stock exchange are greatly sensitive to exchange rate fluctuations especially financial, textile, chemical and machinery industries. He further found out that companies which are highly dependent on exports and imports are extremely sensitive to exchange rate. Similarly, Tsoukalas (2003) found out that in Cypriot stock market, stock prices and chosen macroeconomic variables (CPI, GDP, supply of money, and Exchange rate) are strongly related. But share prices are more volatile with respect to exchange rate because its economy depends on tourism and foreign banking by analyze stock prices from 1975 to 1998 through vector Autoregressive model (VAR). However, Maysami, Howe and Hamzah (2004) used VECM and discover that returns on stock market of Singapore and property index are affected by all selected macroeconomic variables. Specifically, he finds that exchange rate, inflation and returns on stock market in Singapore move in same direction and different sectors behave differently.

Nishat and Shaheen (2004) found that stock values are strongly affected by GDP in positive direction but inflation significantly depresses prices of stock in Pakistan. Results of Granger causality show that macroeconomic variables cause variations in stock prices. Another research conducted by Merikas and Merika (2006) concluded through VAR model, stock price reacts negatively to variations in real economic variables but stock prices reacts negatively to inflation. However, Gan, Lee, Yung and Zhang (2006) determined that movement in stock market and inflation, interest rate, money supply, exchange rate and GDP in real terms and domestic retail oil prices are linked in New Zealand. Sohail and Hussain (2009) uncover that in the long run price of stocks react negatively to consumer price index, while it reacts positively to the rest of the macroeconomic factors except three month T-bill rate to which it have insignificant positive reaction.

Gunsel and Çukur (2007) explore the validity of arbitrage Pricing Theory (APT) in London Stock Market and determine that impact of each factor is different in different industry. Some industry stock prices are positively affected while others are negatively affected by the same factor. For example: they discover that exchange rate and returns of building materials and merchants moves in inverse direction while returns of chemical industry reacts positively to exchange rate, others have diversified their risk. Hyde (2007) utilizes data of four European countries and found that stock returns are changed with variation in stock market in all the four countries. Exchange rate is related to stock returns and at industry level, it is significant in all the selected European countries while relation between instability in interest rate and stock returns is significant only in Germany and France. Kandir (2008) disclose that interest rate, exchange rate (due to rise in tourism services and overseas trade) and returns on stocks are correlated, whereas significant inverse affiliation between inflation and portfolio return is only for three portfolios. On the contrary, shares return and supply of money, oil prices and industrial production is not significantly linked to each other.

Leon (2008) concluded that interest rate negatively move market return and insignificant positive impact on conditional variance of returns. He further said that interest rate has good predictive influence for return on stocks and it has a feeble projecting influence on volatility. Similarly, Zafar, Urooj and Durrani (2008) took the stock returns data and 3-month T-bill rate data beginning at January 2002-June 2006. His findings are similar to N. dri. Konan Leon (2008) in case of impact of interest rate on market returns because when there is rise in interest rate, people choose to invest in banks instead of stocks due to which prices of stock decreases.

Vardar, Aksoy and Can (2008) used Generalized Autoregressive Conditional Heteroscedasticity models (GARCH) and daily data for stock prices from 2001 to 2008. Each sector behaves differently in response to change in interest and exchange rate depending on the composition of each sector listed in Istanbul Stock Exchange. Exchange rate and inflation rate is also negatively related to stock returns. While, Alam and Salahuddin (2009) found effect of interest rate on share prices for both developed and developing countries is mixed. They determined that interest rate and movement in interest rate and stock prices is inversely related in all countries excluding Philippine. Whereas, Aydemir and Demirhan (2009), Exchange rate affect stock prices. But the extent and type of their relationship is different in each country. Exchange rate negatively affects stock market indices in Turkey. On the other hand, Frimpong (2009) used co-integration analysis for long term and vector error correction model for short term relationship analysis. He discovered that in the long run stock cost (price) has a

significant negative response to the macroeconomic variables excluding exchange rate which is positively related to stock returns. In the short run, he found out that all macroeconomic variables affect GSE All-Share Index negatively except exchange rate but impact of inflation and money supply is not significant.
Mohammad, Hussain and Ali (2009) unearthed that foreign exchange and stock prices moves in same direction. Rise in industrial production leads to rise in stock prices. Rahman and Jashim Uddin, (2009) apply Johansen technique and Granger causality technique to study the correlation between exchange rate and prices of stocks of firms of three countries stock exchange in South Asia and found no causal link. On the other hand, Rahman, Sidek and Tafri (2009) found out that Malaysia stock market is negatively related with exchange and interest rate and supply of money in the long run.

Significance of the Study

This research is conducted to increase awareness of investors and brokers and it also endeavor to add to body of literature because little amount of research is focused specifically on chemical industry. Chemical industry is very important for economic development of the country because all manufacturers make use of chemicals in different forms. It is used in almost every industry. Pakistan is agricultural country and agriculture now a day is greatly reliant on fertilizers, pesticides, soil treatment chemicals, insecticides, etc. to get better and large amount of products to fulfill demands of people of the country. Israr khan, (2009) analyzed chemical industry globally and found out that more than 70,000 products are manufactured in this industry internationally. Chemical industry is key contributor to economic development of countries worldwide but its role in Pakistan is insignificant due to shortage of investment.

Stock returns are affected by number of factors. Effects of macroeconomic variables lead to market risk which has positive or negative effects on all industries but due to firm and industrial factors the extent may be different. An awareness of the effect of fluctuations in macroeconomic variables on returns of different industries stocks would be beneficial for investors, finance practitioners, economists, and for academic purposes. By discovering the sensitivity of returns of different industries to fluctuations in macroeconomic variables, investment managers may be able to protect themselves from losses due to fluctuations in macroeconomic variables. Investors will be unable to get profit by investing in stocks if they do not know the effects of macroeconomic variables on industry returns. For example if a company stock returns decreases due to rise in interest rate, managers can hedge against the loss by shifting his investment to stock that are less affected or not affected by interest rate fluctuations.

Theoretical Framework

On the basis of previous research, stock returns is selected as dependent variable and four macroeconomic variables are selected as independent variables i.e. inflation rate, exchange rate, interest rate and gross domestic product.

Methodology

This research is based on positivistic paradigm in which secondary data was analyzed. The scope of this study is to deliver practical suggestion to investors and brokers of Pakistan. Therefore the population of this research includes companies listed in Karachi Stock Exchange. Due to importance and negligence of chemical industry by previous researchers, it is selected. 25 companies are selected through simple random sampling from chemical industry listed in Karachi Stock Exchange (KSE).

Secondary data of five variables employed in this research out of which independent are four and dependent is one (stock returns) studying the behavior of companies from 2002-2009. Data was gathered from website of Business recorder, a financial daily KSE website, and economic survey of Pakistan (various issues), companies' website, and online articles published in different journals.

Purpose of the Research

The purpose of this study is to examine the return on stocks of chemical industry of Pakistan and their reaction to variations in exchange rate, inflation, interest rate, and GDP (sources of risk) using companies listed in Karachi Stock Exchange (KSE) in a given period i.e. 2002 to 2009. It is to help investors and brokers to get high profits and minimize their risk.

Research Hypothesis

A large and growing body of literature has investigated the relationship of macroeconomic variables and stock return by investigating different economies with different statistical models. This research tested the following assumption about stock return and macroeconomic variables.

H1: Stock returns of chemical industry are significantly positively affected by GDP, interest rates, exchange rate, and inflation rate.

Model

A multiple regression will be used to analyze the impact of macroeconomic variables on stock returns on chemical industry. After putting macroeconomic variables as independent variables on the right side and stock returns on the left side as dependent variables, the following model is developed;

$SR = \alpha + \beta 1\ (IFR) + \beta 2\ (ITR) + \beta 3\ (GDP) + \beta 4\ (ER).$

Each acronym represents different variable as;

SR= Stock Return

IFR = Inflation Rate

ITR = Interest Rate

GDP = Gross Domestic product

ER = Exchange Rate

b = slope of the variable

a = intercept

Dependent Variable

Return on stocks

Return can be obtained in different forms e.g. interest, profits or loss, net income, capital gain or loss. Expected return is always positive but realized return can be positive, negative or zero. Return can be calculated through different methods. But this study's main emphasis is on holding period return of common stocks. Stock returns are most of the time calculated for holding periods such as a month, a quarter or a year.

Return is usually expressed in the form of percentage. It can be calculated for a single period (also called annual return) or for multiple periods (also called annualized return).

Return= (Capital Gain +D1)/P1

P2-P1= capital gain

P1= Purchase price of share

P2= current market value

D1 = Dividend (not reinvested)

Independent Variables

1. *Gross Domestic Product*

GDP is used to determine prices of goods and services manufactured in a year within a country in market and it is exercised to evaluate economic development of a country. GDP incorporate all Government and private expenditures, goods and services manufactured exports less imports, and inflation to correctly represent the goods and services of a nation (S.E. Smith, 2010). It is easy to evaluate economic health of a country in a current year against previous year due to obvious calculation of GDP. But there are some discrepancies in GDP calculation i.e. it doesn't consider value of underground markets transactions (black and gray), quality and purpose of goods and services for which it is produced (they may be manufactured to recover the country from disaster not for economic growth), does not allow for variation in prices and unpaid work at home GDP incorporate earnings of the foreigner which they have earned domestically, however it does not incorporate earning of the citizens that they have earned in foreign countries (S.E. Smith, 2010).

Stock Returns and Output Growth

Industrial production and stock returns are positively related because both share prices and dividends increase with rise in industrial production due to enhancement of revenue of firms and industries (Nishat and Shaheen, 2004) and (Mohammad, et al., 2009).

2. *Interest Rate*

Interest rate is amount of extra money paid by borrower for the use of money (credit) of someone else or return on deposited money received from someone else (bank) and it is usually charged on yearly basis (Mike Moffat, 2010). It is expressed as percentage of the principal on annual basis.

Stock Prices and Interest Rates

Stock prices react negatively to variation in interest rate. Stock prices fall due to two reasons i.e. Production costs increases with rise in interest rate which leads to decrease profits and dividends decreases and second reason is opportunity cost increases due to rising interest rate and people will prefer to invest in banks. Stock prices are negatively related to (RRR) required rate of return (Nishat and Shaheen, 2004) and (Mohammad, et al., 2009).

3. *Exchange Rate*

Mike Moffat “Exchange rate is value of currency at which it can be converted to other currency e.g. on 4th March, 2010, 85 Rupees is equivalent to one US $.

Exchange rate and stock returns

Due to increase in international trade, any change in exchange rate (depreciation of currency) affects the profits of firms and in turns stock prices decreases (Günsel and Çukur). Stock prices decrease due to decrease in the worth of currency due to expected inflation (Ajayi and Mougoue, 1996). So it means that returns on stocks are positively related to exchange rate of a country but some researcher think that stock prices is negatively related to value of currency in terms of another currency because decrease in worth of currency leads to increased exports which leads to increased profits (Murinde & Poshakwale,2004).

4. *Inflation*

Kimberly Amadeo (2009) "Inflation is when the prices of most goods and services continue to creep upward called consumer price index (CPI)."

Stock Returns and Inflation Rate

Stock prices and unexpected inflation is negatively related because profits and borrowings of firms are badly affected (due to variation in cash flows and discount rate) by unanticipated inflation (Nishat and Shaheen**,** 2004) and (Günsel and Çukur, 2007).

Results

After analyzing the selected data through regression, we will come up with the conclusion of the research, if other variable that may influence stock returns are kept constant.

Stock Return of Chemical Industry and Macroeconomic Factors Data

The table given below provides data of average stock returns of chemical industry, GDP, inflation, exchange and interest rates from the year 2002 to 2009.

Table 1. Annual Data of Stock returns, GDP, Inflation, Exchange and Interest Rate

Years	Stock Returns(% age)	Interest Rate (% age)	GDP (% age)	Exchange Rate (Rs/$)	CPI (% age)
2002	77.09	11.81	3.1	61.4258	3.54
2003	61.97	6.81	4.7	58.4995	3.1
2004	68.68	5.33	7.5	57.5745	4.6
2005	8.89	8.22	9	59.3576	9.3
2006	-4.06	10.47	5.8	59.8566	7.92
2007	51.29	10.6	6.8	60.6342	7.8
2008	-17.97	12.73	4.1	62.5465	12
2009	3.35	13.76	2	78.0495	22.3

Source: Business recorder website and annual reports of selected companies Economic Survey of Pakistan, (2008-09)

Table 2: Model Summary

R square	Adjusted R Square	F	Sig	Durbin-Watson
.896	.758	6.478	0.078	2.26

a. Predictors: (Constant), Exchange rate, Gross Domestic Product, Interest Rate, Inflation Rate

b. Dependent Variable: Stock Returns

Table 3 Coefficients

Model	Un standardized Coefficients		Standardized Coefficients	t	Sig	Colinearity Statistics	
	B	Std. Error	Beta			Toler -ance	VIF
Constant	-6.114	2.720		-2.248	0.11		
Inflation Rate	-15.018	4.194	-2.320	-3.581	.037	.082	12.137
Gross Domestic Product	8.225	6.815	0.516	1.207	.314	.189	5.280
Interest Rate	-0.717	4.420	-0.056	-0.162	.882	.286	3.494
Exchange Rate	0.118	0.041	2.077	2.886	.063	.067	14.984

The results of regression model give values of coefficients of inflation rate, interest rate, GDP, and exchange rate.

$SR = \alpha + \beta 1\ (IFR) + \beta 2\ (ITR) + \beta 3\ (GDP) + \beta 4\ (ER)$

Stock Returns = −6.114 −15.018 (IFR) – 0.717 (ITR) + 8.225 (GDP) +0.118(ER)

The regression results revealed that stock returns have linear relationship with the independent variables. 1% change in GDP will move stock returns by 8.225% in upward direction and 1% increase in Inflation will bring shift in stock returns by 15.018% in downward direction and vice versa. 1% decrease in Exchange Rate will bring downward adjustment in stock returns by 0.118% and 1% increase in interest rate will depress stock returns by 0.717%. Exchange rate has significant positive relationship with stock returns and inflation has significant negative relationship at 10% level of significance. On the other hand, exchange rate and GDP has insignificant relationship with stock returns.

P-value of F-test indicates significance of overall model here the p-value is less than 10% level of significance. R^2 is 0.896 (89.6%); this means that 89.6% of the variation in dependent variable (stock returns) is explained due to independent variables (interest rate, inflation rate, GDP, and exchange rate) and the model is good in explaining all variables. The calculated (Durbin Watson) DW value is 2.2, which shows that there exists no autocorrelation in the model, making it more reliable.

Conclusion

The basic aim of every investor and broker is to maximize returns and minimize level of risk. It is possible only with full knowledge of sources of risk. Current research only took into account macroeconomic sources of risk. This research inspects the positive or negative influence of macroeconomic variables on returns of companies' stocks listed in Karachi Stock Exchange and chemical industry is selected for analysis. Analysis of previous researches identified many variables which affect stock returns such as demand and supply factors, firm size, market trend, profitability, asset turnover, leverage, dividends, company management, growth perspective, future plans, macroeconomic factors i.e. interest rate, CPI, GDP, stock market trends, Government regulation. But current study selected only four variables due to limitation of time and other resources.

The macroeconomic variables selected for this research are Inflation (CPI), Interest Rate, Exchange Rate, and GDP. 25 companies from chemical sector are selected. Literature show that interest rate and inflation rate negatively influence stock returns and GDP positively influence stock returns but impact of exchange rate differs from country to country. In some countries, the relationship is positive whereas in some countries the relationship is negative.

At 10% level of significance, exchange rate significantly affects stock returns of chemical industry in positive direction and Inflation significantly negatively influence stock returns. Other variables relationship of interest rate and GDP with stock returns of chemical industry is insignificant. After analyzing the findings of the regression, we reached to the conclusion that "GDP and exchange rate positively affects stock returns and Interest rate and inflation negatively affects stock returns" and the findings of this research are analogous to previous researches.

This research covers eight years annual data of share prices and dividends for investigation and chemical industry and provides base for future researchers to conduct comparative study covering different companies and different sectors.

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ANALYZING THE DETERMINANTS OF HOUSEHOLD'S SAVING BEHAVIOUR IN PAKISTAN

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Abstract:

The paper attempts to investigate the determinants of savings by the households in the emergent economies like Pakistan. For this rationale the data of five years (time series) has been collected from different sources likes the Pakistan economic surveys, World Bank and the annual reports of the State Bank of Pakistan. The major variables have been selected due to the time constraint and secondary data is used. Simple OLS regression technique is applied to check the significance of the data. Before running the regression the data is checked for the stationarity and unit root by the econometric package Eviews version 5.0. It is found that employment and income of the house holds have the significant and positive relation on the saving behavior while the tax burden and the inflation have the significant but negative relation with the savings. The coefficient of correlation $R^{2\ is}$ found out to be 0.99 which shows that there is a very strong association among the exogenous and indigenous variables. Keeping in view the key role of national savings in the micro and macro economic stability government should give importance to national savings for sustainable and debt free economy by considering the key variables that are discussed in this paper.

Key Words: Life cycle hypothesis; household savings, savings behavior, national savings; dependency ratio; family size

1. Introduction

According to the economic theory regarding the household's saving is the disparity between household's income and consumption expenditure. A household's income is the earnings from all the possessions during a year. Sources of earnings can be wages from Job, business turnover, corporate profit, interest earning, earning from farm production, crop's earnings etc. Consumption can be stated as the total quantity of goods and services that are consumed by the households during a year. In consumption there include the expenses on food, garments, shelter, rent out, schooling, utility bills, wandering, occasions, medical, recreation/entertainment and charity etc. Savings might be in the shape of many other sources like real property, jewelry, bank balances, shares in the capital markets, live stocks, agricultural fertile land etc.

The "*Life Cycle Hypothesis" (LCH)* is an economic concept analyzing individual consumption patterns. The life-cycle hypothesis tells that people plan their consumption expenditure and savings attitude over the long term period and intend to smooth out their consumption patterns in the best possible way over their life span. The main hypothesis is that people choose to maintain even life styles. This suggests that they usually don't save a lot in one period to spend furiously in the other time period, but maintain their consumption levels approximately the same in every time period, (Angus Deaton, Franco Modigliani (2005).

Gersovitz (1988) supposed that in representing the progress of developing countries, the mediator path is more meaningful than substitute steady states. According to Solow (1956), suggested that savings persuade the growth of the state's economy as in economic theory postulates that high saving rate lead to capital increase and thus economic development.

1.1 Saving in Pakistan:

Pakistan is confronted with many serious problems in the present era. The image of the Pakistan's economy is very much apparent from the figures of 1970's in which the growth rate was 4.80% of the GDP at the mean time total national investment was 17.1%, general savings was 11.2%, foreign savings were recorded to be 5.8% and domestic savings were 7.4% percent of the gross domestic product (GDP). In 1980's expansion rate of Pakistan was very high about 6.5% which was due to relatively more investment from 17.11% to 18.71% of the GDP, similarly comparatively high domestic savings from 11.20% to 14.80% of the GDP and very amusingly less foreign saving rate from 5.8% to 3.9% of the GDP. In the FY 2003, Pakistan had achieved a relatively high growth rate of 7.5% that shows an ideal situation of the country. In that year, foreign saving was negative and very high domestic saving rate. But after the FY 2003, foreign saving has happening rising while domestic savings were declined up to 9.91% of GDP and Pakistan had achieve expansion rate of just 4.10%. That is comparatively low due to less domestic savings. If we take a bird's eye view on the history of Pakistan we come to know that household savings have played a vital role in capital accrual and attaining high growth. In Pakistan there is a positive relation between the domestic savings and capital increase. If one decrease another also decrease and vice-versa.

Many studies regarding Household's saving behavior have been carried out at large-scale level in Pakistan having different demographic and socio-economic variables. The purpose of this study is to examine determinants of the household's savings at micro level (Hafeez 2010).

Apart from the introduction, the remaining part of the research will be set as follows: section II will describe review of the literature; in section III the data sources and methodological issues will be discussed while results will be interpreted in section IV and finally, results and policy recommendations will be stated in section V.

2. Literature Review

In recent years, only some studies have been presented covering the concept of saving behavior in developing countries, mainly using the data of time series or panel while some has used the cross- section data. Despite that this topic is necessary to be discussing more at micro/macro level in order to reach to the solid policy framework in the future. Keeping in sight the importance of households saving behavior in Pakistan; some pragmatic evidences from Pakistan's Economy are review here.

Keynes (1940) acknowledged that savings depend upon disposable/throwaway income. Duesenberry (1949), anticipated that saving is a function of the ratio of income to previous lag year income. Friedman (1957), hypothesize that savings are depends upon permanent income. Ando and Modigliani (1963) suggested that households did not in their early age below 16 years and old age i.e. after 65 years, but they saved more in between these two boundaries.

Davidson and Mackinnon (1983) stated two principle challenging theories of less hike in prices that affect the saving rates in order to see whether one or both the theories could be shown to be false. They used adjusted quarterly data in their research from 1st quarter of fiscal year (FY) 1954 to 4th quarter of FY 1979 for Canada and United States of America. They test their model by choosing the endogenous variables like individual consumption, disposable income and individual savings. The study establishes a positive association between interest rate and savings rates in Canada and US.

Bautista et al. (1990) explained the relative saving manners of rural-urban individuals in Philippine. Family Income and Expenditure Survey for the FY 1985 was used as data sources. Random sample of 16971 households were selected from twelve different areas of Philippines. Their result postulated that income is positively affecting the savings, the dependency ratio (DP) was found to be influence negatively the savings in almost all regions and MPS was ranging from 0.334 - 0.775 based on Permanent Income hypothesis model for the whole country of Philippines. It also recommended that the value of MPS for permanent income was 0.22 to 0.55 and for temporary income the MPS was ranging from 0.39 to 0.80.

Burney and Khan (1992) tested the impact of a variety of social, economic and demographic related factors on individuals' savings in Pakistan. They used primary data source of the household having the sample of 16580 individuals out of which 7443 belongs to urban while 9104 were rural dwellers. The data was gathered from the Household Integrated Economic Survey (HIES) conducted in FYs of 1984 and 1985. The Ordinary Least Square Methodology (OLS) was used for estimation because it gives unbiased estimates. The study resulted that income, household head's earning status, type of profession of household head and the age square of household's head were originate to be positively correlated while the inverse of household's income, the dependency ratio, educational qualification levels of household's head, employment level type and secondary/spouse participation in earnings of the household and the age of individuals were originate to have negative correlation with households saving behavior in both city and pastoral areas of Pakistan. It was also explained that the propensity to save was 0.221 in urban area while 0.37 in the rural area of Pakistan.

Nasir et al. (2004) checked the behavior of saving and investment in Pakistan using suitable econometric and statistical technique and tried to generate a model on the basis of basic theories of saving and investment. They gathered the data from 1971 till 2003, from the Economic Surveys of Pakistan. Ordinary Least square Method (OLS) was the technique used for model estimation. The study resulted that Government Expenditures, development rate of Gross Domestic Product of the country and foreign cash inflow were optimistically and significantly affecting the national savings.

Brata (1999) analyzed the saving behavior of rural industry workers households. The author carried out his survey of about 93 households in FY 1996 from the district and some areas under district of *Bantul*. Study stated that household disposable income, education, gender and industry nature had a positive impact on individual savings. age, age square (for testing long term relationship) and the function of industry in income has no impact on household's saving behavior. It was stated that the government should build up rural industries in order to increase savings and deliver glory for rural industries.

In my research I will used micro level data collected primarily through pre-tested questionnaires from the respondents. In order to make my results more accurate a major variables that might affect the saving behavior of people are included. In contrary to the other studies I will carry out my research on district level.

3. Hypothesis:

Let assume that there is a household whose expectation is that he might live for next "*t"* years from now and will have wealth of "*w"*. He also expects to earn income "*y"* until he retires "*r"* years from now. In this situation the household resources over his lifetime made up of his initial transfer of wealth "*w'* and his lifetime earnings of "*ry"*. It has to be added that the interest rate is assumed to be zero. If the interest rate is a positive figure then it should be consider for the interest gathered upon savings of the households.

The consumer can disburse his lifetime resources during the remaining "*t"* years of his life span. He divides *(w + ry)* equally among "*t"* years he consumes:

Con = (w+ry) / t …..(i)

Where "Con" denotes the consumption of the household

The consumption function of this person can be written as:

Con = 1/t. w + r /t .y ……….(ii)

It is considered that every individual plans his consumption expenditure in this way so the total consumption function will be very similar to the individual function of the households. Thus, the total consumption function of the economy will be given as follows:

$$Con = \alpha.w + \beta.y \quad \ldots\ldots \quad (iii)$$

Where α= marginal propensity to save (MPC) of wealth, β= MPC of income.

H1 = income and growth variables has a positive impact on savings.

H2 = life cycle hypothesis is well-matched with the saving behavior of the people in Pakistan.

3.1 Data sources:

The major source of data for this study is the Pakistan Integrated Household Survey (PIHS). It has various issues but my study will be based on the particular year survey mentioned earlier. It constitutes the total sample of five years time series data. The over all sample is being divided between rural and urban households. To estimate the model based on the econometric study the micro level data is taken from the official website of Federal Bureau of Statistics (FBS), Islamabad, World Bank data series and the State Bank of Pakistan annual reports. FBS is based on the data sets of the PIHS i.e. Pakistan Integrated Household survey.

3.2 The Model:

Following the previous researches on the saving behavior of people in Pakistan slight changes in the variables is being made in order to bring about more significant results. The variables that are taken as endogenous are per capita income of households (PI), inflation rate (INF), employment status (ER), and tax burden (T) while savings of households (HS) is taken as the exogenous variable in the model. The econometric model will be use as following:

$HS=\alpha_0 + \alpha_1 PI + \alpha_2 INF + \alpha_3 ER + \alpha 4\ T + \varepsilon$

3.3 Theoretical explanation of the econometric variables:

a. Per capita income:

Income is a very important factor in determining the saving behavior of any household. Per capita income is the total income earned by the nation divided by the total population of that nation. In economics more income refers to more saving, keeping other things remain constant.

In the above equation (DR) is dependency ratio, (HS) is household size and (NE) is number of earners in the family.

b. Employment:

This factor is also credit worthy in order to measuring the determinants of savings. The impact of employment is ambiguous on the saving behavior of the households (Burney and Khan, 1992). Self employed people save more in the countries like Indonesia and India Snyder (1974). Employment factor is significant in rural population while it is insignificant in urban population.

c. Inflation Rate:

Inflation means the persistent rise in the prices of the goods. In Pakistan the problem of inflation is very severe. More inflation people will consume more because of the rise in the prices of the good and decreasing in the money value, (Fisher Quantity Theory of Money) and hence the saving will be less. So there is a negative relation between the inflation and saving rate of the people.

d. Tax burden:

Taxes are the compulsory payments made towards the government in order to make the expenditure of the government possible. There fore government imposes taxes on the citizens in many shapes. In Pakistan the tax system is not so smooth so any tax imposition creates problems for a common man. There is a negative relation between tax and savings because new tax burden causes an extra expenditure for the household.

3.5 Some other theoretical factors of household's savings:

a. Age of the household head:

Akhtar (1987) examined that there is a relation between the age of household head and saving rates. As the age of household id going to increase the head tries to save more for the old age expenses and keeping in view the expenditures of his children.

b. Dependency ratio:

There are two types of dependencies i.e. of young age and old age. In literature dependency ratio is the rate of population aged below 14 to that of population aged above 65 years. Leff (1969) was a pioneer in developing negative relationships between the saving rate and dependency ratio. According to Leff (1969) the children below 14 and people above 65 years contribute nothing to the saving rather they just consume but his perception can't be accepted fully as there are many countries where the children are measured to be the assets of the state.

Dependency ratio is also defined by Burney and Khan et al. (1992) as:

DR= (HS-NE) / HS

c. Sex/Gender of the household head:

In the countries like Pakistan if the household head is male then he can do work outside even he can go abroad and send the foreign exchange but if the household is a female then it will be a bit difficult for her to go outside and earn for her family.

d. Spouse participation:

If there are some other earners in the family other than that of the household head then there is a positive increase in the household income. As it is earlier mentioned that more income brings about more savings. So spouse participation has a positive impact on the savings of the household.

3.6 Methodology:

In order to test the households saving behavior in Pakistan especially in Swabi district, I will practice the following regression model.

$Yi = f(X1, X2, X3 \ldots\ldots Xn)$

Yi is dependent/exogenous factor which is individual's saving in my study. X 1, X2,…. Xn are self-determining variables. The multiple regression model is given as follows:

$Yi = \alpha + \beta 1X1 + \beta 2X2 + \ldots\ldots\ldots + \beta nXn + \varepsilon i$

Where, α is intercept and βi's are the coefficients of (X1, X2… Xn) while εi is the stochastic random term. The regression model sometimes have the econometric disorders like multicollinearity, heteroskedasticity, autocorrelation and unit root that is investigated and removed during estimation by applying different test.

The following model is estimated:

$HS = f\,(PI, INF, ER, T) \ldots\ldots\ldots\ldots\ldots (I)$

Multicollinearity is very harsh problem about OLS Methodology. If the coefficient of correlation among the variables is in excess of 0.80 then there is severity of multicollinearity as stated by Gujarati (1995). It has to be removed by reducing the multicollinear variables from the regression model until the result become significant. Heteroskedasticity is search out by White test using E-Views package version 5.0. This problem is detached by the application of Standard Errors & Covariance test from E-Views package version 5.0, Heij et al. (2004). Autocorrelation problem in regression model in primary or cross sectional data is not a severe problem as stated by Greene (1992). This study is based on the Life Cycle theory presented by Ando and Modigliani et. al (1963). To check the determinant variables of Household Savings (HS), I estimate the model given in equation (I) by running the OLS estimation technique.

4. Empirical results and analysis:

variables	**t-stat∗**	**coefficients**
constant	1.079621	1.319307
Per capita income	0.69422	0.01128
inflation	-0.81125	-0.03289
Employment rate	0.9096	0.25744
taxes	-54.1636	-2.492606

R^2= 0.999921
* *All values are checked at 5% level of significance.*

The result of OLS regression is highly significant as shown by the R^2. As stated earlier that the coefficients of per capita income, and employment rates are significant and positive. It means that there is a positive relation between the savings and per capita income of a household. As the income of a person increases the saving rate also increases and vise versa.
Employment rate also comes up with the positive sign. As the employment in the country increases people finds more ways to earn and hence they can save as well. In Pakistan unemployment is a main issue that creates hurdles in the way of savings.
Inflation is one of the major variables that bared the saving nature of the people. With the increase in the rate of inflation people can't afford the commodities in lower prices. They purchase the same quantity of a product in relatively high prices. Therefore due to the lower purchasing power of money the people can't save up to the extent.
Paying tax is the compulsory duty of each and every citizen of the country but in Pakistan the tax burden is far more than then a common man can bear. That is why as the tax burden increases the saving rate will be declining.
Similarly some other theoretical variables like dependency ratio also have a negative relation with that of saving nature of the households, Siddique (1993). Moreover Leff (1969) was the first who detect the negative relation between savings and dependency ratio.

5. Conclusion and Recommendations:

Saving is the integral part of the household's income. In economic theory a part of income that is not consumed is saved. The savings play an important role in the economic prosperity and growth of a country. The growth in the economy requires capital so that it may be invested and that capital will be provided by the savings. The nation in the long run rely on domestic savings so our study has high lighten some key factors that highly affect the saving behavior of the people especially in the developing country like Pakistan. This paper analyzes the data during 2005-2010 and found that employment and income has a positive relation with the savings of the people while tax burden and unemployment reduces the savings of the people. As the savings are the vital factor in the escalation of any economy, therefore some policy recommendations are given as follows:

1. Government should provide the basic elementary education to the rural residents so that these people should find better job opportunities in the future.

2. Government should provide micro-level loans to the farmers and also to those who want to start business of their own.

3. Scholarships should be provided to the students for achieving higher level education.

4. Tax burden should be reducing by applying the progressive taxation system in the country.

5. Different population control program should be launched and also the people must be provided with the basic needs of life.

5.1 Scope & limitation of the study:

In developing countries the people are comparatively belongs to the middle class. Due to this they are not succeeding in saving more. This study will be carried out considering the secondary data in order to achieve the best significant result based on the core variables. Due to the great disparity among the population, two main sectors of the house holds are selected to test my hypothesis. Because of the almost same living status of the people existing in the rural regions, this research will also justify that either the results postulated by the HIES based on the population of developing countries has any similarity with this study? Although there might be a little ambiguity in some socio-economic variables as this survey is being conducted on the disperse population. Time constraint is the main factor as more time is needed to inspect the variables in deep so that there is little chance of error in the data. These type of uncertainties shall be considered as the limitation of this research. Some other social and economic variables might be use to sort out more precise results.

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Impact of Optimism Bias on Investment Decisions in Mutual Funds

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Abstract

This research paper examined the impact of optimism biasness on investment in mutual fund industry comprising a sample size of over 200 investors. The foremost intention of the study was to explore optimistic level of mutual fund investors related to investment in mutual funds. Optimism bias was measured by three identified facets as confidence, hopefulness and over-estimation by using a questionnaire. This research makes use of primary data, Regression and statistical tool was applied to analyze respondent's feedback. The study finds a significant relationship between investment decision in mutual funds and optimism bias, indicating that optimism bias is one of a good predictor of investment decision in mutual funds. The study can be useful for the investors and mutual fund managers in devising policies and making decisions. The results suggested that optimism bias had a positive impact on investment decision in mutual funds.

Keywords: *Optimism, overconfidence, over-estimation, hopefulness, fund managers, investment decisions in mutual fund.*

Introduction

This research study aims to evaluate the intensity of fund manager's optimism and their hopefulness, confidence & overestimation are subject to return on investment and whether or not they change from less contemporary investors in their prospective susceptibilities. The level to which optimism and relevant character features such as confidence, hopefulness and over-estimation might well impose any obligation on mutual funds while determining their outcome. Reaction to such concerns may be significantly useful in evaluating skills of the fund managers while drawing comparison in evaluation to success controversy as well as the controversy on efficiency persistence.

A portfolio comprising of a share of resources obtained from multiple investors with sole objective of investing in such as securities and secondary market instruments. Working and performance of Mutual funds are managed by experts named as fund managers, whose task is to identify the avenues in which to invest the money in order to get both capital gain and principle stated amount at maturity. Portfolio of a mutual fund is arranged and managed to be aligned with investment objectives as illustrated in the research. Return on investment in mutual funds depends on expertise and skills of fund manager. A fund manager ensures healthy returns by investing the pooled amount in different stocks in order to diversify the risk factor. This helps a great deal in coping with risks that are associated with financial markets. A mutual fund is managed by a fund manager on whose discretion buying & selling of stocks takes place. Mutual funds are mainly considered as open ended, close ended, funds of funds, capital protected funds etc but here two main types will be elaborated that are traded extensively in financial markets; Open ended mutual fund are issued by Asset management firms or companies in primary market at Initial Public Offer and later on in secondary market, while they are redeemed back to issuing firm in secondary market, while Close Ended Mutual Funds are issued by Asset Management Firm at time of IPO in primary market while they are redeemed in secondary market by investor to a buyer other than the issuing firm or company.

Fund Managers of mutual fund over forecasts over estimate the earnings and profitability of investment in mutual fund due to the optimism bias. Fund managers of Mutual fund over predict and over calculate the income and success of investment in Mutual fund and due to the positive outlook tendency the mutual fund may under or over perform in the market.

Optimism refers to a phenomenon of forecasting expected returns both by investors or fund managers while dealing in a risk prone market, dynamic and vulnerable markets completely or partially bypassing the probability of low returns or complete loss. Discussing biasness in context of mutual fund industry refers to expectations that investors associate with investments in mutual fund industry ignoring the reality of no gains or loss of principle amount invested. As mentioned earlier the investment or returns of mutual funds depends greatly on expertise of a fund manager. Most of the investors and fund managers are very much biased towards the expected return or risks that are associated with investments they have undergone. The term optimism mean disposition or tendency to look on the more favorable side of events or conditions and to accept the most favorable outcomes or to believe that the good ultimately predominate over evil in the word and goodness pervades reality.

Optimism is closely related to the variance of prediction, for it shows people appetite to start overestimating the positives likely to happen to them rather than bad experiences. This variance of prediction can also be referred as valence as it refers to positivity and negativity of attitude or behavior of an individual. The net result that is achieved as a result of valence effects is referred to as thinking as per wishes of an individual. But, in certain situations, the perception about positive outcome may lead to a bias that may ultimately vary the outcome of events in one way or other. Lot or research has been done in this regard that has produced various explanations for these effects. In most of the cases these aspects have been manipulated in the context of motivational biases, which is an argument that tend the individuals to be motivated in order to hold unrealized positive self-perceptions with an aim to improve their own happiness level and well-being. There may be some assumptions, likely to take place in order to maximize their happiness. Likewise there have been another theory put forward by group of cognitive thinkers who claims that people most of the times want to succeed, and more often want to be credited with responsibility for their expected outcomes. In view of above said discussion investors tend to be vulnerable over optimism bias.

Literature Review

Psychological biases are very important factors which affect the investor's behavior and stock prices. They may or may not participate in the investment due to their past experiences. Muhammad (2011) has also discussed factors related to psychological biases effecting investor behavior and stock prices. The investors make their decisions on the basis of their participation in asset and security categories, investors individual loss adverse behavior, past performances as indicator of future performance, investors trading, status quo, efficient portfolios, investor's behavior and influence due to historical high or low trading stocks.

Investors may have perception that they can eliminate the risk and can safe their interests due to investment in mutual fund. There are lots of factors that may influence the investors to release the fund or keep the fund with them. Therefore, they used to switch towards this type of investment. There are enough evidences that show the investor's ability to expose them to risk, financial markets knowledge, sentiments and credibility of market that influence the willingness of investor for releasing funds Nicolas and Holger (2011) has highlight the factors that influence the investors to start investment in mutual funds.

Fund managers play a vital role in the decisions of investors. They are the basic source of earning for them. Fund managers lead the investors and force them to invest in mutual fund industry which leads them towards yielding profitability. Funds managers may forecast the trend of over and undervalued stocks adversely. Malcolm, Lubomir, Wachter, and Jeffrey (2009), based their research on the assumption that the stocks which are selected by mutual fund managers usually outperforms the stocks which they dispose or sell off.

In contrast it is another opinion that in most of the cases the fund managers may invest in the underperforming mutual fund due to the lack of experience and information and skills. Malevergne and Sornette (2009) also discussed why investors are purchasing underperforming mutual funds that investors lack of expertise forced them to rely investing in underperforming mutual funds enabling the fund managers to charge them a certain fee. Simona and Massimo in 2007 have discussed the trend followed by investment banks that tend to force the analysts to develop biased reports to win hearts of potential investors and enhance credit ratings. They have studied recommendations of several such institutes spanning over a time period from 1995-2003 indicating that fund managers personal likings or affiliation with a certain mutual fund may also affects the ratings. Most of the times analysts prefer to opt for favorable stocks which are further dependent on other associated mutual funds which in turn affect lot of factors comprising of the investment banking affiliation. It was further concluded, that greater the size of portfolio, the risk gets diversified therefore ratings gets more optimistic in comparison to analysis conducted by unaffiliated analysts. As mutual have a lot of investor’s money and stakes therefore it further decreases the optimism shown by the analysts. Nevertheless, 1999- 2001, analysts reported that the recommendations of analysts to select a certain portfolio always involves optimism particularly when they are referring stocks amongst a pool of affiliated mutual funds.

Overconfidence of fund managers and investment in mutual fund are closely interrelated. It affects the skills of fund managers which may influence the decisions of inventors in the portfolio which is associated with fund manager’s overconfidence. Investigated by Arman (2011), and conclude that the impact of overconfidence and behavior that have a bearing on fund manager skills against the back drop of returns and risk associated with investing in a certain portfolio. They have further analyzed this phenomenon and derived the relationship between investment and fund managers overconfidence.

Investor’s optimism towards financial markets and their belief in economy may be influenced by political climate. So, it creates behavioral bias among the investors and they improve their portfolio performance with a lot of faith and belief but they face risk due to political conditions. Yosef, Claremont, Kumar and Jeremy (2010), have proved that when opposition party is in power, investors undertake terrible decisions exhibit a lot of biasness and select funds with greater expense ratios.

The investors do not pay heed to reporter’s information or analysis but they for sure take fund managers report seriously they consider the report of fund managers more authentic and reliable as compare to others report including newspapers and magazines. Gideon and Ronnie (2010) have differentiated equity hedge funds into three sources like newspapers, magazines and corporate communication. They observed that corporate covered funds out perform while general covered funds underperformed based on assumption that fund managers present conservative forecasts while reports present lenient views.

The decisions of mutual fund managers are often biased and vulnerable to the behavior and nature of investors. A study carried by Arman (2011) revealed the phenomenon which manager often faces in decisions which are biased in nature. It partially depends on fund managers skills, their luck as well as debate on performance. Their findings proved that fund manager's overconfidence diminishes mutual fund returns and are often biased to behavioral biases and their differences proved after annual report publications. This fund difference is stronger amongst the growth oriented funds rather than established funds in the industry.

Business relations among mutual funds and brokerage funds influenced analyst recommendations. They used a unique data set to disclose brokerage firms and their income derived from share holders and investors. Michael, Lin, Liu and Xuan (2011), the analyst keeps stock recommendations which are not only subject to investor's sentiments but also to equally healthy ratings from analysts that are working in financial markets.

The causes of financial crisis on mutual fund industry, and over the world mutual fund industry was performing exceptional with consistent fruitful returns after 2000 but ever since the financial crisis deepened it got a toll on mutual funds and with an expected yield 30 percent plunged to such a depth that even a break even seemed to be a distant possibility. James and John (2008) have further drawn a line that started that caused a down ward slide in this industry. As in many instances a lot of investors abuse the fund industry through late and frequent trading thus damaging the true essence of mutual fund industry. This further led to competition even inside the industry, within the financial services and revenue sharing, did not led to a conclusive evidence of mutual funds performing in a better way. As understood in such an industry arbitrage does not exist but inferior products do exist with a clear sign of prosperity. All this discussion led to prospects of index funds and the role they play on sentiments related to mutual fund industry.

In most of cases both close ended mutual funds and stocks tend to be held by individual investors who pool their amount in a hope to get greater returns. The fluctuations in returns of mutual funds which were normally based on individual investor sentiments especially in closed ended mutual fund industry may be vulnerable. Charles, Shleifer, and Richard (1991) exhibit a trend in which the funds which are performing long ago in market are being at a premium and sometimes on a very little discount amount which are interrelated with prices of other securities as well. It is supported by these predictions.

The sell-side analysts have to suffer great competition and pressure from the hedge fund clients who tend to issue instructions as when to buy or at least sell their funds on the recommendations of fund managers. Sung and Melvyn (2010) investigates that the hedge funds take advantage of fluctuating reports by offloading their stock holdings. The researchers in this paper have found out similar conclusions with analyst upgrades or downgrades recommendations along with 12 month price targets. The analysts are somehow driven by brokerage commissions and to create or develop optimistic reports for stocks being held by high dollar turnover hedge funds over a certain period of fund life. The research also suggest that in recent times the Wall Street research department have been forced to shed of investment bank revenues and are contend with new fund related conflicts of interests.

Financial markets are based on reforms aimed at attracting the foreign investors. Likewise it is an obvious reality that whenever the markets are integrated the funds need to be assigned or traded in national stock markets in close relation to their market capitalization. Previously it has also been concluded that lack of diversification will lead to lankness on part of international investors. Senda (2007), excessively under weighting of foreign assets is directly termed as equity home bias puzzle. The barriers to capital movements and subsequently information asymmetries along with behavioral factors have been studied and concluded that a much lucrative option for the investors is foreign market where most of people known to him have already invest thus they have studied the impact of social interaction on international mutual funds investment in the longer run.

The effect of optimistically biased future totally neglected the time value. Such an approach is adopted by individuals who focus on orientation. The prediction of future optimism is not a valid term for focused individuals. Lee and Yoon (2010), it has been further elaborated that only those individuals show sign optimism who are presented with an option with a decreased performance as in the past. Such effects are considered into realism by individuals to certain level of elaboration about potential outcomes of a contract.

The researchers have used sum of deviations from a certain bench mark that has been established in backdrop of a proxy serving as rage the fund managers boost up the confidence to such an extent and degree that they have to decrease it once disconfirming public signals. There are lots of dynamics of investors who suffers from the phenomenon of over confidence. Darwin and Dong (2010), this trend or assumption further leads to poor future underperformance mostly motivated by fund manager's choice of portfolios. The underperformance results from a certain biased attribution due to fund managers thinking, smartness in stock selection which others are less familiar or unknown.

The mutual fund managers forecast openly or publicly the earnings and in most cases they over estimate which are then later disclosed at annual earnings announcement. This is also referred to as untruthful reporting biased and bias somewhat cognitively. Willis (1998), such explanations draw a sharp contrast about the timings of changes that prevail between the forecasts alongside annual earnings duly announced. Findings of this paper are more consistent with optimism explanation; such findings are in matching with market manipulation resulting from this biasness. This phenomenon was not ideal to get rid of biasness related to decision making by managers to report a prediction in order to shrug off this perception that fund managers forecasts are biased.

There exists a close relationship between market and sustainability that is dependent on this particular design and it defines some of fundamental environmental issues. A lot of research has been carried out in this aspect that reveals that investors rate the demographics very high. Researcher has mentioned several issues along with biases dependent on cognition and the obstacles associated with investor perception. Sebastian Munteanu and Romania in 2007 concluded in the study that a multiple perception level and breakdown of profession priorities along with the farming effect tends to offer investor several choices. Further discussion concluded that when the optimism is lacking the subsequent level of biasness can no more be conclusive, but when brings halo effect into consideration it becomes much clear. This study further explains some of factors that not only influences thinking of the investors with an agriculture background but also intends to acquire long term persistence and sustainability among the fund managers in order to develop financial instruments.

The difference of opinions and short selling trend in case of mutual funds may cause differences in opinions and panic or intentional short selling may result in asset over pricing. This formula is also applicable to criteria required to determine prices of mutual fund, which ultimately cause short selling of mutual funds. Cheng, Massimo and Zhang (2004), further concluded that investors often make up opinions about the skills of fund manager and in order to utilize services of fund manager they have to pay a certain fee for this service that fund manager offers while buying or selling of mutual funds. Further analysis of Berk & Green model helps to elaborate some common observations occurring and associated problems that are prevailing in mutual fund industry involving those funds that are not fetching any healthy returns along with price difference between actual fee and estimated fee.

The returns that are based on risk level are defined in light of agency models by defining beta and thus they are not dependent on Capital Asset Pricing model standards that maintains price as a set standard to determine the performance of mutual fund. If we analyze the fund industry we will come to the conclusion that some mutual funds tend to consistently fetch healthy returns for quite some time keeping in mind market tends. Jason (2004) discussed that investors have to keep a close look at certain funds by dividing fund industry in several sections. Further they calculate the aggregate of funds that translates the inflows from investing into mutual funds. As those funds that bear a high risk value provides managers with an opportunity to modify their portfolios venturing into more diverse ventures thus minimizing the beta risk periodic payments in relation to a greater value of beta. The aggregate of stocks performance is dependent on equity funds as it is always rated high both in terms of risk as well returns. High beta value in comparison to the cash trapped by investing in relative stocks is always in sharp comparison to overall stock market that is statistically not significant in terms of mutual fund industry.

The dynamics of investors over confidence can be calculated by using the values of absolute deviations while observing a particular bench mark index. Shares that actively take part in market are used as a dummy to calculate confidence showing a certain trend shown by the mutual fund managers by boosting their confidence to such an extent that seconds public signals rather than to further diminish it. Choi and Dong (2010), highlighted the performance of fund managers who lack in experience and are more vulnerable to risk as well as sentiments of investors. Poor performance of funds may sometime be expressed to this factor as well which is based on motivation provided by managers who have limited choices to choose from. This paper further discusses that underperformance that is a result of biasness can be contributed to manager's lack of experience as they stick to a particular industry to invest in their stocks rather than studying the industrial trends and overall trend.

The behavior of investors is attributed either to redemption fee that is a certain lesser than then purchasing price. Sometimes it is also, referred to the performance of funds during economic crisis. But Berk and Green (2004) totally disagreeing with this concept suggested that investor's personal attitude and his irregular behavior plays a major role to explain the issues associated with buying and redemption of mutual funds. This does not depends on fund fee while truly competitive markets plays a pivotal role considering mutual fund industry and that is still an unresolved mystery in mutual fund industry amongst the analysts who conduct qualitative analysis. Several studies such as Coates and Hubbard (2007) and Grinblatt, Ikheimo, and Keloharju (2008) argue competition do exist in mutual fund industry moreover charges charged by fund managers are always at par with prevailing market. Importantly this study reveled that keeping in mind returns on investment in mutual funds, risk aversion by opting to select a diverse portfolio and charges incurred by almost all US domestic equity, have always been in market previously or at present have some additional costs associated with them during the previous some years. Prior to this these investment in mutual funds renders a competitive handicap to index funds priced very less. This study also supports findings of School 1982, Freeman 2007, Freeman and Brown 2001 etc. that leads to a conclusion that fund manager's charge relatively more than market competitive prices as recommended by them. Therefore there is a need for a sterner competition and regulations in mutual funds industry. A comprehensive research was carried by Palmiter and Taha (2008) that further explored the studies published by the SEC. It basically depends on a common human deficiency of unsophisticated response of investors, while the SEC's regulations bound investors to reveal information is not well defined. This mainly is due to lack of financial knowledge.

Most of the investors are biased when they are dealing with their domestic markets. Market exposure, market knowledge and adequate opportunity to understand market dynamics is also an important issue. Barber, Odean, and Zheng (2005) and Choi, Laibson, and Madrian (2008) provide evidences that front end load and back end load are the two important aspects of dealing with buying and selling of stocks that attracts some seriousness as far as investor is concerned. But majority of investors are least bothered about ratios associated with mutual funds. Capon, Fitzsimons, and Prince (1996) and Alexander, Jones, and Nigro (1998) demonstrated in their respective studies that most common and basic terminologies associated with trading of mutual funds are unknown to investors, including charges they have to pay to fund managers. These facts clearly indicate deviation from irrationality which is very much in line with the focus on investor's expertise of industry. Funds markets are another important aspect investors lacking in that mostly leads them into self defined benchmarks such as returns on deposits in banks or other such investment schemes.

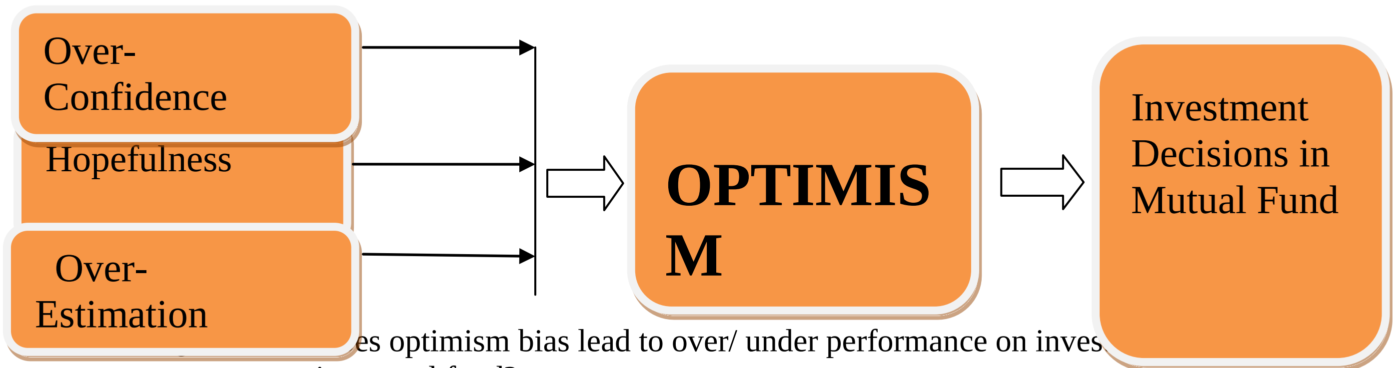
Optimism bias is mostly affected by the practices performed in industry that promotes the trading of fund shares. Since 1980, marketing and distribution fees have been charged by investors which previously were not directly deducted from returns of investment. Khorana and Servaes (2004) and Barber, Odean, and Zheng (2005) have identified another important impact of this fee on funds as it improves performance of mutual funds. Investment in equity fundseems to be a focus end to for all subsequent mutual funds as they tend to take advantage keeping in mind the international rules associated with diversification. This phenomenon is most of the times associated with non centralized information among local and foreign investments. Murray (1991) explains several strategies that are used to enhance trading of mutual funds. When comparison is drawn across borders there is a certain variation in fees paid to fund managers across borders. Elton, Gruber, and Das (1993), Gruber (1996) and Chevalier and Ellison (2002) showed that funds which high expense ratios from investors do not offer healthy returns mostly. This may be interpreted as biasness shown in tandem to pool or portfolios of investors who are least bothered about fund performance.

Sometime there may be funds that charge lower fees in order to compete for and to attract more investors. This may be based on the theory of optimal contracts between managers and investors, by considering a variety of factors and mechanisms to explain fee charges and structure of portfolio services. Das and Sundaramb (2002) made a comparison amongst some symmetric and asymmetric models by selecting a group of investors. Stracca (2006) provides an excellent insight on this topic. The relationship between a manager and an investor formulates a scenario associated with example of the general principal agent problem. Following the work of Ross (1973) and Holmstrom (1979), numerous studies have applied the principal-agent model to various scenarios of economic exchanges between among investors and fund manager. To cut the discussion short an investor hires services of a fund manager while the structure of payment in case of mutual fund is the tool that is used in order to safeguard their interest, while maintaining the existing practices taking part in economic market. Mostly it is assumed that managers who have complete access to an investor's private information, whereas investors have no access to a manager's expertise level or his past performance related to financial markets. Information about fund manager is mostly revealed in fund manager monthly reports at end of a certain quarter. Optimal portfolio is defined as a mixture of the mutual fund investment and of other vehicles that investor himself has avoided to undertake. Sometime the fund manager utilizes the level of understanding of the investor's decision by utilizing the private sources to know the fee level that maximizes expected utility. The problems that is associated with additional informational disadvantage of the investor.

Provision of a common formula in order to conclude a fund's performance, by adjusting risk associated with fees payable to fund manager for his services. In sharp contrast to this, results do not require any restriction on in terms of fund's return distribution and the investor's utility function as long as it is a variant and converging. Over-optimism of investors translates into decisions which are made on the basis of limited or misguided information, ultimately leading to investments in funds that are not performing at par with equity funds. Furthermore, it is shown that investor's over-optimism can be explained either by the efforts shown by the persons working in sales department or by the investor's inappropriate selection of benchmarks, or by a combination of both, possibly due to the lack of sufficient investment knowledge. An innovation in optimism is also one of the important factors that investors keep in mind while undertaking any decision. Most of the investors undertake future investment decisions based mostly on specific information about asset as well as their information about any future economic growth. Patel studied in 2010 and he investigates the role of investor’s optimism about their investment decisions based on future economic growth. The investor investment decisions are based on economic optimism and macro economic conditions. Investors not only consider futuristic economic optimism in their decisions but also put greater weight on it when fund specific information seems uninformative and less valuable.

Basic Research Model

In this paper, several facets of optimism bias has been examined to influence the optimism bias of investors and to check the impact of the decision making on investment in mutual fund. Thus the model is as follows:



es optimism bias lead to over/ under performance on inves
in mutual fund?

Hypothesis:
H_0: There is a positive relationship between Optimism bias and investment in mutual fund.
H_1: There is a negative relationship between Optimism and investment in mutual fund.
Objectives of the study
The research study investigated the dynamic relationship between investors and investment in mutual fund from behavioral perspective. The objectives of the study are to observe:

- the relationship between overconfidence and investment in mutual fund.
- the relationship between hopefulness and investment in mutual fund.
- the relationship between over-estimation and investment in mutual fund.
- the relationship between optimism and investment in mutual fund.

Significant of the Study

The significant of the study is to highlight the behavior and attitude of fund managers in the context of overconfidence, over-estimation and hopefulness. Fund managers are taking decisions on the behalf of the investors while investing in mutual fund and creating portfolio. Optimism bias is one of the important biases from the other factors of human behavior which can predict the direction in decision undertaken and in the selection of portfolio. All this will play a significant role for both the fund manager and investor simultaneously. The study will help the fund managers while devising policies regarding the decisions in mutual fund investment.

Theoretical Background of the Study

In generic terms this paper intends to explore the level of mutual fund investors which is at par to optimism biases and with an insight as to what extent it affects their investment mindset in a particular way. Specifically, optimism and the behavior associated with e.g. overconfidence, hopefulness, over-estimation and self-serving attribution bias may lead to any compulsion on the performance of fund which is of interest. The solution to these questions is of utmost importance and is informative to enhance the investor’s skill minimizing the luck factor along with debate as well as the debate on consistency of performance. The questionnaire is motivated by the large areas of research, including the dynamic relationship between investors expressed optimism of with mutual fund and studies of professional investor psychology. This factor has been discussed in depth in the psychology literature. Odean, (2001) explained that investors wrongly contribute their healthy returns and loss to circumstances, this causes a sense of overconfidence in their approach. Overestimation is also sometime referred to as of one’s investment skill that may result in diversified trading with a greater portfolio size, as documented in this research paper, despite the extensive literature examining optimism and overconfidence among individual investors, executives, traders, and individual investors.

A behavioral finance model mostly depends on concept of individual investors who are limited in terms of decision making and judgment to errors. By reviewing prior rational investors in efficient markets reveals how the psychological biases affect investor behavior and prices. A research study by Maheran and Muhammad (2007) also observed the same phenomenon and revealed that behavior exhibited by most investors while making investment decision is their participation in portfolios dealing in bonds and securities. Individual investors show a loss-averse behavior by analyzing their past performance serving as an indicator of future performance in decisions related to stock purchasing, moreover the investors normally trade too aggressively while keeping in mind the investors status quo and investors themselves cannot create an efficient portfolio. This does not necessarily show cost cutting means in order select a certain set of securities to avail better choices so that the market becomes more competitive and efficient. This involves regulations, overconfidence, and perhaps there needs to some steps taken to make advertising of mutual fund to become a standard norm.

A diversified portfolio helps to minimize the uncertainty of future investment plan so unit trust has become a more attractive option to the investors. The trend has arisen due to risks associated with over diversification and under diversification as a greater portfolio is difficult to handle while smaller portfolio does not safeguards against the risk. Zulkifli and Basaruddin (2007) discussed the risk associated with selection of portfolio on basis of its size. They investigated as to what optimum number of stocks are enough to help investor maximize its profits in terms of diversification. They used Markowitz theory along with simplified approach in order to identify the ultimate diversification. By having a sample of 87-stocks they concluded that in Malaysian market 13 stocks are enough to avert risk and select a convenient portfolio.

Various researchers have tried to establish model in order to measure the investment trend along with investors own perception towards risks related to investment. In order to implement this a survey was carried on based on attitude of Taiwanese investors by Chou, Huang, and Hsu (2010) to find their previous investment experiences as a benchmark, with a record of their responses when they have to perform in a perfectly economic environment. This was used to develop a framework to interpret their relevant attitudes and behaviors. Extreme levels of perception about risk are indicated by investors in relation to their own investment experiences. Investors who have little or no experience working in stock markets and secondary markets are labeled as at highest echelon of risk. In this context model proposed by researchers is very much in line to find a positive correlation between experience and intensity of risk, although penalty is desired to be learnt in order to fully understand this. A deep thought to other financial instruments operating in financial markets each investor level of risk and expected returns shows significant but not a positive correlation that may be termed as negative as well. Eventually, as information is available, their perception on instruments operating in financial markets is lesser as compared to higher expected remuneration.

Some phenomenon when interpreted in the framework of motivational biases, an argument arises as the investors who are highly motivated to possess some positive perceptions with an objective to derive their own pleasure and survival are more vulnerable to biasness related risks. Some investors opt for a utilitarian way to maximize their happiness while others may look for cognitive means.

Research Methodology

Population and Sample

Population for the research is mutual funds investors in Pakistan and 200 investors of mutual funds in Islamabad have been chosen as a sample on the basis of convenient sampling.

Instruments Utilized

Primary data was used in the research. The study of questionnaire from MichaelF Scheier & Charles, Carver of Optimism (1985) and Dr. Martin Seligman's book, "Learned Optimism" (2000) was used and developed. These instruments were distributed to gather the data for research purpose.

Quantitative Techniques

Regression model has been used to analyze the data. In this paper, researcher intends to find out the dynamic relationship between optimism biasness and the decisions related to investment in mutual funds were identified.

Brandt and Schmidt (2011) used an attitude behavior model which was developed by Schmidt (2010). The model was extended to identify the different predictions of willingness and interaction towards investment in mutual fund. To measure the interaction effect the researcher uses the regression model. Analysis through regression model is used as products of the predictors. The predictors must be perfectly reliable to avoid the biased estimation of the regression co-efficient.

Regression Model

The following regression model was used to test the relation of investment decisions in mutual fund and optimism bias.

$$IDMF=f\ (\text{Optimism bias})$$
$$IDMF=f\ (OC, HOP, OE)$$
$$IDMF=\alpha+\beta_1 OC+\beta_2\ HOP+\beta_3\ OE+ \text{Error term}$$

Where:

IDMF = Investment decision in mutual fund.

OC = Overconfidence

HOP = Hopefulness

OE = Over-estimation

The above regression model was used for testing the hypotheses. Investment decision in mutual fund was used as dependent variable and independence was optimism which was calculated with three dimensions including overconfidence, hopefulness and Over-estimation. The measure captures the combined effect of investment in mutual fund and optimism bias.

Variable Definition and Measurement

There are the three main identified faces of optimism bias which has been incorporated to obtain level of relationship of optimism with investment in mutual funds. Variables that are used to measure optimism are given below;

Over-Confidence

Before defining variables it is important to have an insight of facets of optimism. Both from investor and fund managers perspective the terms “confidence”, “trust” and “belief” are unanimous to all of them and are somehow synonyms. Investigation further deeper into this philosophy “confidence is relates to trust. Whenever there are financial crisis may also be termed as a confidence lacking phenomenon and it is further derived from the Latin meaning to believe. Cumulative trust and confidence among the investors have a great significance which directly affects the financial markets. Most interesting aspect in this regard is dynamism between particular investors trust level varying from person to person.

This was stated by Akerlof and Shiller (2009), who proposed certain confidence multipliers that are based on the concept of Keynsian multipliers which further highlights how marginal propensity to consume spreads between a selected group of investors in relation to, decisions based on political or regulatory decisions. It is further discussed that subsequent change in a particular investor’s level of confidence in the financial markets also affects other investor’s confidence level by maintaining all other factors constant which are closely associated by confidence multiplier. This was further highlighted by a logical mathematical framework in order to determine a model as to how confidence or lack of confidence forces an investor and other financial agents to undertake a particular decision.

Over-Estimation

A look at literature related to psychology reveals that two different types of explanation for overestimation and its associated effects. From one perspective, these phenomena are in relation to biasness related to motivation, while this discussion leads to the point that are most of times willing to hold non realistic self-perceptions in order to derive maximum happiness and their own well-being. This assumption is related to the fact that investors tend to maximize their happiness in a utilitarian way. Alternatively, a different perhaps complementary view is put forward by cognitive psychologists who argue that investors always intend to bear healthy returns, and they intend to be responsible for the outcomes of their investments. These two factors play a pivotal role in determining investor's vulnerability to self-serving m

Overestimation normally refers to the over valuation of bonds and securities, experience, expertise, knowledge, competences available information and decision making. Over estimated value of micro and macro-economic factors influence the decisions of investors to great extent. It is human nature to learn about themselves and know their strengths by analyzing the outcomes of their deeds and in doing so, most of the investors overestimate the extent to which they may contribute to their own success. There are lot of factors that has to be discussed separately in this discussion. Van den Steen (2002) proved that investors attribute earnings to their own efforts while losses are attributed to external forces or bad luck. In the same manner ego-centric or self-centric bias reveals that investors opting for a joint venture that involves over-estimation that contributes to profits while overconfidence is related to both investors and general public over-estimates the accuracy of their expected outcomes and their actions while foremost of all the illusion of control is based on the fact that investors forecasts they have more saying rather than the results of a random or partially random event.

Overestimation can lead to overconfidence. This was further studied by Gervais and Odean (2001) who proved that most of the investors wrongly interpret their good performance in terms of retruns on investment, and likewise bad performances are attributed to chance, which is another aspect of being over confident. This overestimation of investment skill, in this regard sometimes result in excessive trading, as analyzed by Odean (1999). Regardless of the studies that lead to attribution and overconfidence among normal investors, professional experts, traders, and small investors, though there are just few researches that reveal the biases in fund manager performance. It is generally assumed that most of the investment in financial markets is not done by retail investors as they are solely responsible for their own investments, in fact it is made by the major institutes. Any co-relation between fund manager's performance and his potential overconfidence or susceptibility results in biasness which should be of great significance, not only to literature but also to financial markets as well.

Hopefulness

It is the phenomena of optimism in which the investors always have a positive hope regarding their investment decision. They think and assume the factors will positively affect the investment plan. They never compromise on think about the dark sides of the result. Investors expect that the prices of particular securities will hopefully increase. Sometime they take decisions in verse condition when the prices are in the diminishing trend and they invest in these securities with a positive hope.

Forster (2003) investigated about the positive emotions and thoughts of the people. The researchers indentified some positive assertions based on hopefulness including hopeful attitude at work and school, hope of living for a long period of time with a good health, creativity in problem solving process, extra contribution in the society and having a happy life as compare to other. Is there any hope?

Hope is a construct which closely relates to optimism, although the two are not identical. Snyder, one of the leading specialists in hope, represents it as an ability to conceptualize goals, find pathways to these goals despite obstacles and have the motivation to use those pathways. To put it more simply people feel hope what they know what we want to be. They can think only within a range.

It is not hard to guess that being hopeful brings about many benefits. For example, we know that hope buffers against interfering, self-deprecatory thoughts and negative emotions, and is critical for psychological health. In the domain of physical health, we know that people who are hopeful focus more on the prevention of diseases (e.g. through exercising). Athletes with higher levels of hope are more successful in their performance. Furthermore, based on research with college students, it appears that hope bears a substantial relationship to academic achievement.

Snyder emphasis a cognitive rather than an emotional approach to hope, claiming that positive emotions are the result of concluding that we are pursuing goals successfully. This means that they see hope as a goal-pursuit thinking that causes emotions. As often happens in psychology, many other researchers would not subscribe to this view, conceptualizing hope as an emotion in itself.

Data Analysis

The descriptive statistics for the variables of 200 observations were made having mean values, standard errors, median and other descriptive statistics as mentioned in the table below;

Table 1 **Descriptive Statistics**

IDMF		***OC***		***HOP***		***OE***	
Mean	4.251	Mean	3.896	Mean	3.987	Mean	3.945
Standard Error	0.013	Standard Error	0.021	Standard Error	0.022	Standard Error	0.019
Median	4.266	Median	4.000	Median	4.000	Median	4.000
Mode	4.466	Mode	3.800	Mode	4.200	Mode	4.000
Standard Deviation	0.187	Standard Deviation	0.301	Standard Deviation	0.319	Standard Deviation	0.279
Sample Variance	0.035	Sample Variance	0.091	Sample Variance	0.102	Sample Variance	0.078
Kurtosis	-1.005	Kurtosis	1.500	Kurtosis	-0.350	Kurtosis	-0.064
Skewness	-0.398	Skewness	-1.021	Skewness	-0.259	Skewness	-0.484
Range	0.800	Range	1.600	Range	1.400	Range	1.400
Minimum	3.733	Minimum	2.800	Minimum	3.200	Minimum	3.000
Maximum	4.533	Maximum	4.400	Maximum	4.600	Maximum	4.400
Sum	875.800	Sum	802.600	Sum	821.400	Sum	812.600
Count	200.000	Count	200.000	Count	206.000	Count	200.000

The correlation coefficient shows the relationship between the variables. It has a range between +1 and -1, where +1 shows perfect positive correlation (moving in same direction) while -1 shows perfect negative correlation (moving in opposite direction).

The following table gives the correlation coefficient for the variables of the study.

Table 2 Correlation

	IDMF	*OC*	*HOP*	*OE*
IDMF	1			
OC	0.531381055	1		
HOP	0.676759217	0.371710362	1	
OE	0.525879449	0.316416077	0.449868993	1

Overconfidence and IDMF had a correlation coefficient of .531 which shows a positive relationship.

Hopefulness and IDMF had a correlation coefficient of .676 which shows strong positive relationship.

Over-estimation and IDMF had a correlation coefficient of .525 which shows the existence of positive correlation between the variables.

Since, the values of the correlation coefficients approve the presence of a positive relationship between IDMF and facets of optimism; we conclude that the optimism leads to over/ under investment in mutual fund industry.

Table 3 Regression analysis

	CONSTANT	**OC**	**HOP**	**OE**
S.E	**0.147435**	**0.030848**	**0.030934**	**0.034622**
T	**12.61**	**5.78**	**8.93**	**4.35**
P	**2.8E-27**	**2.83E-08**	**2.53E-16**	**2.09E-05**
R Square	**F**	**Significance F**		
0.587629	**95.95004**	**1.22E-38**		

Results & Discussion

Table 3 shows the result of regression analysis for the investment and optimism bias. The overall results show that the regression model is highly significant. The value of significance f is far below given range of .05 which shows the high significance of the model. Similarly f statistics is 95.95004 which are high enough to reflect the significance of f statistics. R square of the model is .59 which means that 59% of the variations in dependent variable on independent variables are being explained by the model. The p-value is below the given range of .05 which clearly indicates that the independent variable is a tool to predict the dependent variable. Coefficient is the slope of regression line which tells the relationship between the variables. Larger the coefficient the more change in independent variable with respect to change in dependent variable.

The result shows the positive relationship between dependent and independent variables, therefore the H_0 i.e. Null hypothesis has been accepted.

Conclusion and Limitations

The study carried out to explore the impact of optimism bias on investment in mutual fund. The facets of optimism bias are confidence, hopefulness and over-estimation where the investment in mutual fund is dependent variable. The relationship shows the performance of the dependence variable due to the independent variable. The cross-sectional variations shows that previous good performance leads to an optimism as calculated by the regression model by using investor's responses which may also be a result of theoretical as well as market trends being used in mutual fund market. Regressions has been applied with dependent variable of investment in mutual fund and independent variable of optimism bias and the results suggesting that optimism does not indeed diminish the return of mutual fund and Regression coefficient is stronger which shows the significant change in investment in mutual fund with respect to change optimism bias.

Limitations

The research is limited to the relationship of mutual funds investors and optimism bias that investors are more tentative to be overoptimistic about future events and the subsequent result of their investment plans. This study is only concern with optimism bias which is a part of several other biases of behavioral finance. Only three different facets are optimism bias has been incorporated but there may other dimensions of optimism bias as well. The sample size of 200 investors in Islamabad can be extended and the research can be implemented on broad area.

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Book Review:

Decision Making & Problem Solving Strategies (2nd Edition, 2007) By. John Adair. Kogan Page. London

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Decision making & Problem Solving is the issue which management faces on each step of the business development. John Adair has written a very practical guide book which facilitates reader to understand the nature of decision making and problem solving. It elaborates different problem solving strategies, directs how to generate ideas before making the decision, and how to think creatively and how to develop thinking skills. This book is divided into seven parts.

The introduction part of this book talks about three forms of applied thinking: decision making, problem solving and creative thinking which are overlapping but are distinguishable. Decision making is about deciding what action to take; it usually involves choice between options. The object of problem solving is usually to find a solution, answer or conclusion. The outcome of creative thinking is to generate new ideas. The leaders aspire to take best decisions, optimum level of problem solving, and innovative ideas are generated for growth of businesses. Final step is to master the process of practical thinking which lie behind all the effective decision making, problem solving and creative thinking. One cannot guarantee the outcomes but can at least make sure that you use the well tried-and-tested processes of thinking to some purpose. One owns that responsibility and this book is aim of this book.

Author sates the words of Roy Thompson, ‘If I have any advice to pass on, as a successful man, it is this: if one wants to be successful, one must think; one must think until it hurts. The book explores l explore some practical ways in which you can improve your skills in this key area. By the time

you have worked through the book you should: working of mind, clear framework of decision making and its relationship with problem solving, using a model for decision making & problem solving, developing creative and thinking skills.

The first chapter discusses that behind the thinking human mind works. It states the difference between brain and mind. Brain works like chips in the computer and mind is what appears on the screen. This chapter explains few exercises which makes your mind work. This chapter also discusses three main functions of the mind; Analyzing, Synthesizing, and valuing. Analytical thinking is related to logical or step-by-step reasoning. Logic has two main parts: *deduction* and *induction*. It is the process of deducing a conclusion from what is known or assumed. More specifically, it is a question of inferring from the general to the particular. Induction works the other way round. It is the process of inferring or verifying a general law or principle from the observation of particular instances – the core of the ‘scientific method’. Synthesizing is putting or placing things together to make a whole. It is the reverse process of analysing. Synthesize means to assemble or make anything. All products and services are the results of syntheses. Nature is *holistic*. If analyzed into parts, they lose their essential holistic quality. Our mind has a holistic dimension. It can think holistically – in terms of wholes –

as well as analytically (taking wholes to bits). The third is valuing which means establishing success criteria, evaluating, appraising performance,
and judging people e.g. in a selection interview. Criticism is a form of valuing. In the end depth mind exercise is given.

Second chapter talks about the art of effective decision making and explains classic five step approach to decision making; define the object, collect relevant information, generate feasible options, make the decision, implement and evaluate.
Third chapter dilates upon the sharing decisions with your teams. Leaders are supposed to learn three types of needs that play a significant role while sharing and making the decision: task needs, individual needs, team maintenance needs. Understanding these are incomplete without thee leadership functions: Defining the task, Planning, Briefing, Controlling, Evaluating, Motivating, Organizing, and Providing an example.

The Fourth chapter explains the problem solving strategies. A bridge model is discussed. In fifth chapter different techniques of generating new ideas are discussed. One of the creative thinking techniques is Brainstorming which works better in groups. In brainstorming criticism is strictly prohibited and focus is only to generate as much as wild ideas. Later few workable ideas are chosen. Sixth chapter talks about how to explore other forms of thinking that is called lateral thinking which emphasizes wider look for solutions. This chapter discusses two themes Vertical thinking Lateral thinking. Last chapter takes note of developing thinking skills and states that if you truly want to develop your thinking skills then your task is essentially one of self-development. This chapter ends with few key points and one point says that don't think of thinking as being hard, painful or laborious – if you do that you certainly won't apply yourself to shaping and sharpening your thinking skills. Thinking is fun, even when – or especially when – we are faced with apparently insurmountable difficulties.

